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TRAFFIC OFFENSE SENTENCING PROCESSES AND HIGHWAY SAFETY

Volume I Summary Report

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Final Report

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16. Abstract The history and development of traffic offense sanctions are reviewed. Criteria for traffic offense sanctions are discussed in terms of evenness, economy, appropriateness, rational allocation, effectiveness and parsimony. The framework for development of standards for traffic offense sanctions is presented. The research literature related to traffic offense sanctions is reviewed, emphasizing special and general effectiveness. An agenda for recommended research is proposed. Four specific sanction policies are analyzed: habitual offender laws, driver license suspension/revocation, mandatory penalties and restricted or occupational licenses.					
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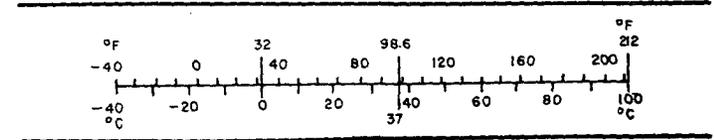
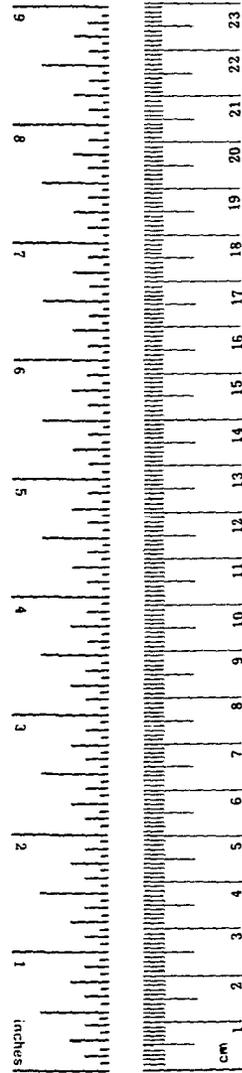
METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
in	inches	*2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in ²	square inches	6.5	square centimeters	cm ²
ft ²	square feet	0.09	square meters	m ²
yd ²	square yards	0.8	square meters	m ²
mi ²	square miles	2.6	square kilometers	km ²
	acres	0.4	hectares	ha
MASS (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
VOLUME				
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft ³	cubic feet	0.03	cubic meters	m ³
yd ³	cubic yards	0.76	cubic meters	m ³
TEMPERATURE (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
AREA				
cm ²	square centimeters	0.16	square inches	in ²
m ²	square meters	1.2	square yards	yd ²
km ²	square kilometers	0.4	square miles	mi ²
ha	hectares (10,000 m ²)	2.5	acres	
MASS (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m ³	cubic meters	35	cubic feet	ft ³
m ³	cubic meters	1.3	cubic yards	yd ³
TEMPERATURE (exact)				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



* 1 in = 2.54 exact (1 in other exact conversions and more detailed tables see NBS Mon. Publ. 236, Units of Weights and Measures, Price \$2.25, SD Catalog No. 013-10-236.

PREFACE

PRC Public Management Services and Public Systems, inc.* wish to acknowledge the efforts of the various contributors to this report. Mr. John P. McGuire was the project manager with overall responsibility for the conduct of the entire study and for the final report. Mr. Raymond C. Peck of the California Department of Motor Vehicles (DMV), acting as a consultant, conducted and prepared the literature review. (His opinions are not necessarily those of the California DMV.) Mr. Peck also developed the agenda for further research and provided advice throughout the study. Mr. Franklin E. Zimring of the University of Chicago Law School acted as a consultant in several areas of the study, most notably providing guidance regarding sanction standards and the structure of both the study and the report. Mr. Zimring also prepared the introduction to the report. Mr. Steven M. Patent, formerly of Public Systems, inc., developed, conducted and described the survey of judges and designed the mandatory jail study survey. Mr. David J. Bernstein, formerly of Public Systems, inc., assisted with collection of data and review of selected literature. Law students from Santa Clara University, particularly Mr. Philip Adleson and Mr. Edward Norwind conducted the survey of state traffic code sanction provisions. Mrs. Livia K. Li and Dr. Patricia F. Waller of the Highway Safety Research Center, University of North Carolina, conducted the study of the North Carolina Habitual Offender Laws reported in Appendix B, Volume III.

The authors would like to express their appreciation to the many individuals and organizations who provided support to the project. In particular, we thank Mr. George D. Brandt, who served as the NHTSA Contract Technical Manager, for his thoughtful discussions, recommendations and technical review.

We wish to thank the officials of the Departments of Motor Vehicles in Arizona and Washington and of the various courts in those states for their cooperation in providing access to data for the mandatory jail study.

*This study was begun while the project staff was with Public Systems inc., Sunnyvale, California. During its progress the staff became part of PRC Public Management Services, Inc. of McLean, Virginia, and San Francisco, California.

Finally, we wish to thank those who prepared the final report, Mrs. Dorothy Westwood, Miss Roberta Buford, Mrs. Elizabeth McGuire, Mrs. Ellie Peck, and Mrs. Lavon Dixon.

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INTRODUCTION

This report, which consists of this Summary (Volume I), a Technical Report (Volume II) and Appendices (Volume III), is the product of a survey to determine what needs to be known before we can formulate meaningful standards and goals in traffic sanction policy. As such, it represents a first step toward a policy science approach to traffic sanctions as a part of a national transportation policy. It is remarkable that so little is known about the operation and impact of traffic sanctions in a nation where more people drive than vote and where the traffic court is the most important contact with criminal justice for most adult citizens.

There are many reasons why policy scientists should be interested in traffic sanction policy. If traffic law enforcement and administration are viewed as a business, they are big business indeed, occupying a substantial percentage of total police time and consuming as an industry between one and two percent of gross national product. Traffic accidents account for two out of every hundred deaths in the United States and huge economic losses. If sanction policy can have a cost-effective impact on accidents, it is important to determine how this can best be done. If not, it is important to impart fairness and economy into our sanction system and direct resources that would otherwise be used in sanctions to other need areas in a transportation and highway safety policy.

The primary focus of this study is on traffic sanctions as an instrument of loss reduction. While the criminal law of traffic has always been thought of as serving traffic safety aims, the impact of traffic law and of sanction choice has rarely been studied in any detail. In recent years, in part as a result of empirical study, many have begun to doubt the efficacy of traffic sanction policy to serve traffic safety needs. Yet it would be foolish to assume that traffic law has no impact on accidents. Speed limit enforcement has been shown to reduce accidents and injuries. The Road Safety Act of 1967 in Great Britain apparently reduced deaths and injuries from alcohol-related crashes. And the recent 55-mile-per-hour national standard speed limit may prove to be the most spectacular short-term fatal accident countermeasure in history. We cannot assume that traffic sanction

policies have no effect on the behavior of either the general public or sanctioned offenders; neither can we invest our uninformed faith in traditional sanction policy as a safety resource.

Definition

Some initial issues need to be raised as a preliminary to this report. First, there is the surprisingly sticky issue of defining what is a traffic sanction. Much of what the courts and administrative agencies compel drivers to do is seen by the agencies as treatment or education. Are such programs "traffic sanctions"? If so, are these same programs "traffic sanctions" when administered to non-offenders in schools or as a pre-condition to driver licensing? In this report, a traffic sanction is defined as an official measure imposed on a driver as a result of his being charged with a traffic offense. Traffic sanctions include measures taken by administrative agencies as well as courts; measures imposed before conviction of an offense (such as requiring a court appearance) as well as measures imposed instead of normal court processing or conviction (as in the range of currently popular "diversion" schemes). The distinctive qualities of the traffic sanction are two: the measure is taken as a result of a subject being charged with a traffic offense, and the measure is compelled or coerced (either required of the offender or presented to the offender as a choice of two evils). Alternative definitions of traffic sanctions include limiting the term to measures imposed by courts or as a consequence of conviction, but both of these definitions would result in ignoring administrative and "diversionary" processes that may be more important than court behavior. Including the study of voluntary education or training programs would ignore the fundamental difference between coercive and non-coercive interventions and leave the term sanctions with an operational definition quite different than its ordinary language meaning. A harder question is whether the actions taken by non-official agencies--schools, employers, insurance companies--as a consequence of traffic citations should be considered traffic sanctions. These actions are excluded from the formal definition used in this report.

Four Basic Principles

In conducting the study we have borne four basic principles in mind.

1. Traffic sanctions may be one method of achieving traffic safety objectives, but they are not the only way, and there is no reason to suppose a priori that sanctions have a preferred position among policy alternatives to achieve safety goals.
2. Loss reduction is one aim of traffic sanction policy, but it is not the only official motive for imposing sanctions on traffic offenders.
3. The sanctioning process can be considered as distinct from other traffic law enforcement phases such as law enforcement and adjudication, but changes in sanction policy have recursive effects on other aspects of law enforcement.
4. Sanctions have costs to the sanctioning system and to offenders.

Section 1

CURRENT TRAFFIC OFFENSE SANCTIONS

The origin and developments of traffic sanctions as part of traffic law has been from the general penal law. With the appearance and increasing presence of automobiles on streets and roads and later on highways in the first three decades of this century, the need to regulate their movement became obvious. This led to the formulation of various "rules of the road" laws, backed up with penalties modeled after those that were expressed in the current criminal laws.

The establishment and evolution of traffic sanctioning policy has been characterized by its relationship with the formal criminal law and by its tendency toward particularization. From the very beginning of the development of traffic law, discussions and legislation concerning sanctions to be imposed on offenders were formulated in the context of the sanctions imposed on violators of criminal laws. Thus, for many years the "traditional sanctions" of fine, jail and probation were imposed for most traffic violations. Over time, the unique elements of traffic, for example, the nature of the driving task, the causes and effects of specific violations and accidents, and the fact that traffic offenders represent a much greater proportion of the populace than criminal offenders, led to an evolution in the way in which traffic offenders were treated.

With the increase in automobiles, highways, and traffic volume, there was a corresponding increase in traffic offenses and in accidents. The increase in traffic accidents and investigation of their causes led to additional regulations and increased enforcement. This was accompanied by a greater variety of announced sanctions for offenders. Following the pattern of criminal law, violations were generally misdemeanors with a few felony exceptions. Adjudication of these offenses took place in the courts of appropriate jurisdiction and over time, became the principal business of the lower courts in the United States.

Legislatively mandated regulations regarding vehicle registration and driver licensing resulted in the establishment or enhancement of administrative

agencies in each state to conduct these activities. As a result of this, traffic sanctions became uniquely characterized by a dual system--judicial and administrative. Today, in most jurisdictions, it is intended that the judicial "track" and the administrative "track" interact dynamically in the sanctioning system. For example, the judge acts or does not act, say, with respect to the driver license of a convicted offender, knowing that the licensing agency will act. The degree to which this occurs varies with jurisdictions depending on a number of factors, both objective and subjective. In addition to the dynamics of action, the administrative and judicial handling styles tend to be natural competitors in terms of which is to be the primary policy setting regulatory body. In terms of the sanctions available to the two tracks [jail (and fine) vs. license suspension] it would appear that the judicial track would have the most impact in the sanctions area. In terms of actual practice--the fact that jail is seldom imposed and that license suspension is much more frequently imposed--the administrative track has the most impact in the sanction area.

For some time now there has been a tendency to decriminalize or detraditionalize traffic law. As it turns out, the break has been developing between serious and non-serious traffic crime in terms of the maximum imposable penalty. If one wishes to preserve the option of sending a traffic offender to jail, the offender must be processed through a court. Thus, sanction policy becomes a key issue in traffic sanction regulation organization. In general, if jail is removed as a possible penalty, those committing traffic offenses that may result in a license suspension or revocation or some lesser sanction can be disposed of by means of a due process hearing in an administrative setting.¹ Retention of the possibility of jail results in adherence to the traditional system or creation of a system in which most offenses will be treated administratively and some small number become a residual category in the criminal courts.

¹While administrative adjudication was not specifically set forth as an area for investigation in this study, the implications for the sanctioning process that it contains cannot be overlooked. As such, where appropriate, administrative adjudication will be referred to as an example of a proceeding that offers certain benefits over traditional approaches.

What are the sanctions for traffic offenses? Criminal law, including traffic law, usually defines the upper limit of a sanction rather than the mode or the minimum sanctions. Thus a review of specified sanctions leads to a determination of the maximum announced sanction, i.e., the "bark" (as opposed to the "bite") stated in the law. In practice, examination of the sanctions imposed on offenders suggests that for those offenses with the greater maximum sanctions, the greater the disparity that will be observed in their imposition.

One of the distinctive characteristics of traffic offense sanctions is the extremely large number of citizens on whom they are imposed. This stems from the fact that traffic offenses, even serious ones, are massive acts. As a measure of this massiveness, consider the estimates shown in Table 1. Nearly 95 percent of all arrests/citations are for traffic offenses and almost all of those are for minor offenses. The forty-seven million traffic arrests/citations in FY 1974 represents more than one arrest/citation for every five persons in the United States. Fortunately, the processing of this number of offenders through the adjudication-sanction system is performed in a manner that requires minimum interaction between the offenders and the adjudication officials. In at least thirty-three jurisdictions, however, the statutes provide for jail sentences as a possible penalty for violation of traffic laws.² It is not difficult to imagine the societal response that would result should there be a sudden escalation of the penalties imposed on traffic offenders so that a significant proportion were being incarcerated. Because of the very large number of citizens that will be affected by any changes in traffic offense sanctioning policy, it is imperative that such changes be precisely evaluated in terms of their ultimate impact.

As a preliminary to discussing traffic offense sanctions in terms of their purpose and potential, their formalization in standards and suggestions for research into their effectiveness, we present a brief review of the traditional traffic offense sanctions. This review first covers the maximum traffic offense sanctions set forth for selected offenses in the various vehicle traffic codes of the states. The code survey material is followed by examples of the types of sanctions actually imposed on traffic offenders in selected

²See Table 2, *infra*.

Table 1
 COMPARISON OF CRIMINAL ARRESTS WITH
 ARRESTS/CITATIONS FOR TRAFFIC OFFENSES

Offenses	Number of Arrests	Number of Convictions
Known criminal offenses cleared by arrest (1974)	2,698,000 ¹ (5.3%)	1,141,000 ² (2.9%)
Selected major traffic offense arrests ³ (FY1974)	3,303,000 ⁴ (6.6%)	[2,477,000] ⁵ (6.3%)
Other moving traffic offense arrests/citations (FY 1974)	44,239,000 ⁴ (88.0%)	[35,391,000] ⁶ (90.7%)
Total	50,240,000 (100%)	[39,009,000] (100%)

¹ Reported Part I Crime data for 120 million population extrapolated to 211 million. (Murder/manslaughter, forcible rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft.)

Source: Crime in the U.S. 1974, FBI, Nov. 17, 1975.

² Based on 42.3% conviction rate reported at Table 22.

³ Driving while intoxicated (alcohol or drugs), hit and run, driving under suspension and reckless driving.

⁴ California data extrapolated from 12 million drivers to 125 million drivers.

Source: Judicial Council of California, Annual Report of the Administrative Office of the California Courts, 1975, Tables 31, 32, 42.

⁵ Based on a conservative 75% conviction rate (California's was estimated at over 80%.)

⁶ Based on a conservative 80% conviction rate (California's was estimated at over 85%.)

jurisdictions that have been the subject of previous analyses. We also comment on the results of a series of interviews with judges who impose sanctions on traffic offenders.

1.1. Sanctions Prescribed in Traffic Codes

The basis for the imposition of sanctions on traffic offenders is found in the traffic code of the state. Since the traffic offenses of concern in this study are those that are in some way connected with driving activities that are potentially accident producing, the laws that are of principal interest are those that are generally referred to as the "rules of the road," and those dealing with driving while intoxicated and reckless driving. In most states these laws are contained in those parts of the general statutes dealing with vehicles, highways or transportation.³

A summary presentation of the number of jurisdictions having certain maximum penalty modes prescribed for selected traffic offenses is shown in Table 2. In preparing this table, the more common administrative and judicial sanction modes were ranked in descending order of severity across the top from left to right. Also, if a jurisdiction's statutes provides for more than one sanction mode for a category of offense, that jurisdiction was counted in the cell corresponding to the most severe mode prescribed. The offense categories are also ranked in more or less descending order of severity.

The striking feature of the data presented in Table 2 is that the legislative bodies have in general provided wide latitude to judicial and administrative agencies for the selection of traffic offense sanctions to be imposed.

1.2. Sanctions Imposed for Traffic Offenses

Examination of the sanctions prescribed for traffic offense violations in the states reveals little about what sanctions are actually imposed on individuals convicted of such violations. For most minor traffic violations, bail is established in the jurisdiction in which the offense occurred and most often the bail is

³ Detailed information from a code survey, including the maximum sanctions and the range of penalties for selected offenses by state are contained in Appendix A, Volume III. Appendix A also presents an analysis of the penalty structures for common traffic offenses found in the various state codes.

Table 2

NUMBER OF JURISDICTIONS HAVING PRESCRIBED MAXIMUM
PENALTIES FOR SELECTED TRAFFIC OFFENSES

MAXIMUM ANNOUNCED SANCTIONS OFFENSE CATEGORIES	IMPRISONMENT (Felony) (More than 1 yr)	JAIL CONFINEMENT (Misdemeanor) (1 yr or less)	LICENSE REVOCATION (More than 3 yrs)	LICENSE SUSPENSION/ REVOCATION (3 yrs or less)	MONETARY FINE (>\$500)	MONETARY FINE (\$101-\$500)	MONETARY FINE (\$100)	TOTAL NUMBER OF JURISDIC- TIONS (%)
DWI - First Offense	3 (6%)	45 (88%)		3 (6%)				51 (100%)
DWI - Second Offense	6 (12%)	45 (88%)						51 (100%)
Being Declared a Habitual Offender		2 (4%)	16 (31%)	4 (8%)				22 (43%)
Driving Under Habitual Offender Revocation	16 (31%)	6 (12%)						22 (43%)
Driving Under Suspension/Revocation	2 (4%)	48 (94%)		1 (2%)				51 (100%)
Leaving Scene of Fatal or Injury Accident	18 (35%)	32 (63%)		1 (2%)				51 (100%)
Reckless/Careless Driving - First offense	1 (2%)	45 (88%)		3 (6%)		1 (2%)	1 (2%)	51 (100%)
Rules of the Road (moving violations) (where criminal)	1 (2%)	24 (47%)				2 (4%)	4 (8%)	31 (61%)
Rules of the Road (moving violations) Where classified as offenses, infractions, violations, etc. (generally non-criminal)		8 (16%)				5 (10%)	7 (14%)	20 (39%)

posted and forfeited without the necessity of a court appearance on the part of the defendant. In a small percentage of minor offense cases, the defendant chooses to appear in court, perhaps to contest the circumstances of the case or to plead not guilty and have the determination of guilt made by the court or by a jury. Upon conviction, the individual adjudicating the case has the duty of imposing the sanction.

A number of studies in the literature have dealt with various factors in the traffic enforcement and adjudication process. The documentation of these studies provides a data source which can be used to indicate what sanctions are imposed for certain offenses in various jurisdictions. We present two examples of such sanctions reporting.⁴

1.2.1. Analysis of California Driver Records

Finkelstein and McGuire (1971)⁵ report data obtained from examination of driver records for a three year period for a one percent sample (133,622) of California drivers. Possible penalties considered were fines, jail, driver license suspension, and attendance at traffic school.

The Technical Report (Volume II) presents data regarding the distribution of fines vs. the number of prior convictions for California adults and a similar distribution for jail sentences imposed for those convicted of a two-point violation. (Jail is seldom imposed for one-point violations.)

In general, there was no major change in penalty as the number of prior convictions increased. For adults, the amount of the median fine remained fairly constant, while the percent jailed for five or more days increased as the number of priors increased (55% for adults with no two-point priors compared to 83% for adults with five two-point priors). License suspension or traffic school was not commonly imposed on adults.

⁴Appendix A presents additional data of this type as reported by other studies.

⁵R.P. Finkelstein and J.P. McGuire, An Optimum System for Traffic Enforcement/Driver Control, 4 vol., GTE-Sylvania, Inc., 1971, vol. 2, Appendix C.

In another aspect of the study, an analysis of over ten thousand traffic citations and the associated court processing revealed that the fines which were handed down varied greatly depending on the court. Furthermore, an examination of mandatory court sentences revealed that the courts do not necessarily follow the provisions of the Vehicle Code.

1.2.2. Use of Jail as a Sanction

As part of a study of the potential for decriminalization of moving traffic violations, Arthur Young & Co. (1972)⁶ reported on the use of jail as a sanction in eight courts that they investigated. From this they concluded the following:

- Jail is seldom utilized as a penalty for moving traffic offense convictions.
- Most jail sentences are applicable to convictions for selected serious violations.
- Even in cases of selected serious violations, other sanctions are preferred to jail.

1.3. Survey of Judicial Practices in Imposing Traffic Offense Sanctions

Any study of traffic offense sanctions must take into consideration the factors which influence the judges who impose them. In an attempt to assess some of these factors, we interviewed twelve municipal court judges and four traffic commissioners in two adjacent counties in the San Francisco Bay Area concerning sentencing practices.

1.3.1. Factors in Traffic Court Sentencing

There are a variety of sanctions used by traffic court judges and referees. Some of these are mandated by law, e.g., jail for a second drunk driving conviction in California; others are permitted by law, where the statutes allow the judge latitude to use his discretion; and some sanctions imposed are actually beyond the scope of the statutes. In our

⁶Arthur Young & Company, "A Report of the Status and Potential Implications of Decriminalization of Moving Traffic Violations," Contract No. DOT-HS-123-1-179, December 1972, Final Report.

survey, we were given a wide variety of reasons for the various sanctions imposed. Among other things, the subject judges were asked to tell us what sentence they would impose on individuals whose traffic offense, prior record and related factors were described in a number of scenarios.

The great majority of minor traffic offenses are not contested but are settled with a bail forfeiture. If an infraction case, e.g., speeding, stop sign, etc., is contested, the judge or commissioner may weigh a number of factors to reach a verdict. If a guilty verdict is reached or in the case of an appearance to plead guilty with an explanation, these same factors carry over to the determination of the penalty to be imposed.

Typical penalties in such cases include:

- Fine according to a statewide bail schedule
- Reduced fine
- Suspended fine
- Assignment to traffic school (Citation possibly dismissed or not reported to the state licensing agency).

When more serious violations are involved, e.g., misdemeanors, including drunk driving, the variety and range of penalties increases. Time in jail, license suspension, large fines, and formal probation are all potential sanctions at this level.

California law currently prescribes a mandatory 48-hour jail sentence and one year license suspension for a second drunk driving conviction within five years of the first conviction. With this severe automatic penalty "in the wings," most of the judges surveyed rely on a straight fine for the first offense. We surveyed eight municipal court districts in two counties and found that within each district, the judges had agreed on uniform sentencing policies to avoid the problems of "judge shopping" for lenient treatment.

In drunk driving cases, the blood alcohol concentration (BAC) is very often a critical factor to the judge. In our survey we found that judges generally set certain BAC levels as cutoffs for assignment to alcohol services centers, imposition of more severe penalties, or both. Moreover, it would seem that

some of the judges surveyed have a very vague concept of and casual attitude toward the physical effects of various BAC levels.

1.3.2. Use of Parajudicial Personnel in Minor Traffic Cases

The national trend in recent years has been to separate less serious traffic offenses from the regular criminal process. This separation has taken such forms as creating a new category of offenses, e.g., infractions, utilizing parajudicial personnel appointed by judges to process pleas and impose fines, and actual removal of adjudication to an administrative proceeding of the driver licensing agency.

While these efforts to speed up processing of traffic violations and reserve court resources for criminal matters are commendable, it is apparent that the impact of such actions of the traffic sanction structure has not been fully analyzed prior to their implementation. Our localized survey of traffic court arbiters (judges, referees, commissioners) in California has made this point very clear. We found, for instance, that when an offense was quite flagrant but, technically, an infraction, some enforcement officers would cite for misdemeanor reckless driving. Additionally, we found an unclear policy regarding the conditions under which parajudicial personnel may impose jail sentences.

Section 2

CRITERIA FOR TRAFFIC OFFENSE SANCTIONS

In the preceding section we discussed the framework in which traffic offense sanctions are imposed--the historical development of traffic sanctions, their evolution from the criminal law and their current position in the judicial and administrative areas. The point was made that the role of the legislators is to prescribe the maximum sanction for such offenses. Given that, it is then the role of the sanctioning agent to select a proper sanction. But on what basis is one to say that a penalty is proper? There is a need to establish criteria for imposition of traffic sanctions.

The notion of a sanction should not be viewed in the isolation of a statutory specification, but should be considered in terms of the sanctioning process. Given that a conviction has occurred, the sanctioning process is one wherein the official adjudicating the case takes into consideration the penalties specified in the code, the particular case and its circumstances, the intent of the imposition of the sanction, and the probable result of its imposition.

The sanction criteria are developed in terms of six elements defined below. These elements taken individually represent properties that a sanction can possess in its application. Taken collectively, their satisfaction determines whether a sanction is proper.

Sanction Criteria Elements

The sanction criteria elements are defined as follows:

- a. Evenness--Sanction evenness can be expressed by the concept that "like cases are treated alike". Cases are alike in terms of instant offense, prior record and possibly other related circumstances.
- b. Economy--Sanctioning economy satisfies the requirement that, for the presumed benefit of the sanction, a minimum cost to the sanctioning agency should result.

- c. Appropriateness--Appropriateness means that the sanction should impose not much more or much less punishment than the public perception of what is deserving for the particular case.
- d. Rational allocation--A sanction is rationally allocated when the sanctioning efforts are concentrated where the need and benefits are the highest.
- e. Effectiveness--Effectiveness means that a sanction will produce certain desired effects. Sanction effectiveness is subdivided into special effects--pertaining to the individual on whom the sanction is imposed, and general effects--pertaining to the general population. Four special effects may be produced from traffic sanctions:
 - The preventive effect--imparting the notion that the traffic laws should not be violated
 - The skill building effect--improving driving skills
 - The attitude change effect--in terms of attitudes towards driving practices
 - The deterrent effect--instilling a fear of the sanction imposition.

Three general effects are expected from traffic sanctions:

- The educative effect--the public learns that an offense is prohibited
 - The moralizing effect--the public learns that an offense is wrong
 - The deterrent effect--the public learns of and fears the punishment.
- f. Parsimony--parsimony means that the sanction should impose no more punishment than is necessary.

These elements each deal with different aspects of sanctions, but can interact with each other in both positive and negative ways. The process of choosing a proper sanction involves balancing the degree to which the elements influence the sanction in such a way that the desired outcome is produced.

2.1. Evenness

Evenness is defined as "treating like cases alike" in imposing sanctions. This means that if two cases are similar in terms of the instant offense and the prior record and prognosis of the individual, then the same penalty should be imposed in each case. There is a difficulty here in that two cases are seldom truly alike and thus variations in imposed sanctions can frequently be justified. However, it should be the goal of a sanctioning policy that, to the extent that two cases are as much alike as possible, then the sanctions imposed should also be alike.

Because sanctions are administered in a real world setting, constraining the sanctions to satisfy the evenness criteria is something that only occurs over a period of time with the imposition of sanctions for many cases of a similar nature. The measurement of evenness of a sanction is best performed by analyzing a sample of similar offense traffic cases.

A measure of the disparity of evenness can be assessed by comparing cases in which a jail sentence was imposed with those for which it was not, for those offenses in which a jail sentence is possible. As the seriousness of the extenuating circumstances are examined and one approaches the threshold wherein a given judge may impose jail, it is possible to establish a borderline situation in which some cases result in fine only, while others result in jail, or both fine and jail. Examination of the evenness associated with the imposition of jail should be made in terms of the individual convicted offender. The dollar fine and time in jail should not be equated, as is frequently done, by a routine formula in the codes.

The variables to be examined when comparing various cases regarding the evenness element of the sanctioning criteria are as follows:

- The instant offense--the offense for which the sanction is being imposed. The offense circumstances should also be examined.
- Prior record of the defendant--The previous offenses of the defendant should be taken into consideration by the sentencing official.
- The prognosis for recidivism--Although based on a number of factors such as

prior record and attitude, and influencing other criteria elements such as parsimony, rational allocation and effectiveness, the sanctioning agent's prognosis of the future performance of the defendant influences the penalty imparted and is to be considered when determining whether cases are alike.

These factors are the ones that justify evenness. There are other factors, however, than explain evenness or its absence, but do not justify it. Some of these are:

- Attorney representing the defendant
- Plea vs. trial
- Driver circumstances
- Attitude
- Age/Sex/Race/Socio-economic Class.

The factors listed above, which are the variables that influence or can be used to measure the degree of evenness of a series of imposed penalties, may have to be estimated in different ways. Some of the variables could possibly be assessed by interviewing judges regarding the degree that they are influenced by certain factors. Others are those which almost every judge would insist did not influence his determination regarding the sanction to be imposed. To achieve results with the highest validity, it would be necessary to analyze a sufficiently large number of cases to make a statistical determination concerning any bias regarding these factors in the actions of a particular judge. Comparison between and among judges and even among courts and administrative agencies (handling similar cases) is necessary for a determination regarding overall evenness of sanctioning efforts for a driving population of interest.

2.2. Economy

The sanctioning criteria element of economy is defined as follows:

"For the presumed benefit of the sanction, a minimum cost for the sanctioning agency should result."

The idea of cost to the sanctioning agency should probably be expanded somewhat to include related agencies that are not actually imposing the sanction

but are concerned with carrying it out. Examples of this are:

- The cost of custodial agencies
- The subsequent cost of enforcement and adjudication agencies
- The cost of treatment and education agencies
- The cost to the appropriate agencies when the offense requires a court appearance or when a diversion program is used to process offenders.

The costs to the sanctioning agency and related agencies of imposing sanctions are measured in terms of dollars expended, in terms of time consumed in the associated activity and in terms of the opportunities available for imposing such sanctions. Opportunity costs are management functional costs associated with the problem of allocating fixed or constrained resources over a number of pressing areas requiring action. Unfortunately, there is considerable difference in effort involved in stating that economy can be measured in terms of dollars, time and opportunity and in actually making these measurements. It is an extremely complex matter to assign cost figures to the imposition of a sanction both within the sanctioning agency and in terms of the costs associated with activities of related agencies in enforcing and adjudicating actions associated with the sanctions. In general, the costs associated with sanctions are usually commensurate with their severity. The defendant who faces a mandatory jail sentence or license suspension is certainly more likely to be adjudicated (and sanctioned) in a costly proceeding than is the defendant facing a five dollar fine.

2.3. Appropriateness

The sanctioning criteria element of appropriateness is defined as follows: "The sanction should impose not much more or much less punishment than the public perception of what is deserving for the particular case."

The concept of appropriateness of a given sanction is dependent principally on the notion of the public's perception of what is deserving for the individual offense. This can be considered *in vacuo*, that is,

in terms of the offense itself, or in a subjective manner in terms of the individual, the offense he has committed, his particular circumstances and the sanction to be imposed. The public perception of what is deserving for a given offense has been described by Zimring and Hawkins (1973)⁷ when they say, "The idea of retribution or just deserts as setting an upper limit to the range in which penalties are to be chosen should always be borne in mind." The concept of retribution or just deserts can readily be established in the case of property crimes, and even sometimes in the case of crimes against the person. However, in what is essentially non-criminal or quasi-criminal activity such as traffic offenses, it is difficult to establish a retribution factor. Presumably, as long as a penalty is not way out of line, then the public perception is that it is reasonable. In referring to traffic and other minor violations, Zimring says, "Such offenses are not subject to serious condemnation and public attitudes regarding 'appropriate' penalties are not rigid..."⁸ At another point, in referring to drunk driving offenses, he says "it may often appear that precisely because a particular type of conduct is not subject to strong moral condemnation, therefore heavy penalties will be necessary to suppress it."⁹ On the other hand, if there is disparity between traffic sanctions and sanctions for other criminal activity, e.g., probation for burglars vs. jail for speeders, the public outrage will be heard. Traffic offenses offer a unique opportunity (in our society at least) to impose sanctions that are related to the offense, for example, the ability to restrict one's driving capabilities with an occupational license, in response to a driving-related offense.

Measures of appropriateness are possible through opinion gathering mechanisms. The "track record" of the judge in punishing various violators is the preferred measure, however. Another measure of appropriateness, after the fact, would be to examine the escalation of penalties corresponding to an escalation of seriousness of violations. A given penalty for a given violation can be examined in light of the penalties imposed on the nearly eligible group, if such can be established.

⁷F.E. Zimring and G.J. Hawkins, Deterrence, the Legal Threat to Crime Control, University of Chicago Press, p. 42.

⁸Ibid., p. 246.

⁹Ibid., p. 41.

2.4. Rational Allocation

The concept that the sanction is rationally allocated means that the sanctioning efforts are concentrated where the need and benefit are the highest. Examination of the meaning of the definition suggests two things. First, that there are needs and benefits--in our case, traffic safety needs and benefits--that are served by the imposition of sanctioning efforts and that these needs and benefits can be ranked in such a way that those that are the highest can be determined. The second part of the implication from the definition is that it is possible to concentrate sanctioning efforts as described.

In the traffic safety field, the needs and benefits referred to are generally defined in terms of a reduction in vehicle crashes. The principal goal of traffic safety activities is to reduce accident involvement. Generally the traffic laws are written with several purposes in mind, but one of the principal purposes is to avoid collisions among vehicles on the road. Therefore, it is generally assumed that reducing traffic offenses will result in the reduction of traffic crashes. Among the efforts involved in reducing the traffic offenses is the imposition of sanctions on violators.

The experience in traffic safety research has been that it is difficult to demonstrate a relationship between traffic violations and crashes and the relationship between the imposition of sanctions and a corresponding reduction in traffic crashes. Nevertheless, to insure that sanctioning efforts are rationally allocated, it is necessary to establish some relationship between the imposition of sanctions, the corresponding reduction in violations and subsequent overall reduction in crashes. Some efforts have been directed in this area by researchers, but, as indicated, the results are not always as predictable as might be expected.

As a general point, it should be noted that if the result of a sanctioning effort can be predicted, then emphasis should be placed on specific deterrence. If the outcome cannot be predicted, the emphasis should be placed on general deterrence. It is incumbent upon those who are in a position of administering such sanctions to make a determination of the needs and benefits in relation to traffic safety and to obtain valid scientific evidence of the relationship between the sanctioning effort and the satisfaction of those needs and benefits. The sanctioning agent should

then be required to allocate his sanctioning efforts to those which produced the highest need and benefit satisfaction on the subject recipients.

2.5. Effectiveness

The criteria element of effectiveness is defined in terms of the expectation that a sanction should produce certain desired effects. These desired effects are subdivided into special effects--pertaining to the individual on whom the sanction is imposed, and general effects--pertaining to the general population. Some of the desired effects of a sanction apply to both the individual sanctioned and to the general public; others pertain specifically to one of those two audiences.

2.5.1. Special Effects--Those Pertaining to the Individual Who is Sanctioned.

Four special or individual effects can be expected in various degrees from the imposition of a sanction for traffic offenses.

a. Preventive Effect

The penalty should teach the sanctioned individual that he is not to violate the law in the future. The principal effect to be obtained from any sanction by the individual is the punishment for having done the subject lawbreaking. This aspect of the sanction is minimized when remedial sanctions are employed instead of traditional punitive sanctions.

b. Skill Building

The sanction should improve the driver's individual skills. This is an auxiliary effect of the preventive effect when traditional sanctions of jail or fine are imposed. In the case of a moving violation, especially if it is accident related, the individual may, as a result of the penalties imposed, be brought to reflect on "where he went wrong" and how he might change his driving habits to eliminate this flaw.

c. Attitude Change

The individual sanctioned should modify his attitude toward his driving practices. This effect can be closely related to either the preventive effect or the skill building effect. When traditional sanctions are used and the offense may have resulted

from a casual or faulty attitude, reflection on the prevention aspects should lead to consideration of the need for changing attitudes. When remedial or educational sanctions are imposed, the course material should include the need for and encouragement of a proper attitude.

d. Deterrent Effect

The deterrent effect instills fear of the imposition of the sanction in terms of potential future violations. The preventive effect, the attitude change effect and the deterrent effect are all tied closely together. The "painful" awareness of the preventive effect generates the fears of the deterrent effect. If attitude change is active, it may include deterrent aspects. One reason for change in attitude is to reduce the chance of further imposition of sanctions.

While distinctive in description, the various special effects subcategories are difficult to distinguish in individuals without extensive and possibly unreliable measures. Recidivism, in terms of reduced violation rates, and reduced accident rates can, under appropriate conditions, be used to make comparisons with those not receiving any sanctions.

One advantage in measuring the effectiveness of sanctions on the sanctioned individual (special effects) is that there is no question as to whether the individual was aware of the sanction. When attempting to assess the effects of sanctions, controlled studies can be used to account for variations due to effects not related to the sanction being imposed or analyzed. With respect to traffic offenses there exist considerable opportunities for research and experiment. In spite of this, there have not been many studies regarding the effectiveness of various sanctions. Those few that have taken place have suffered in that, either the number of subjects examined was small and therefore the conclusions drawn are at best tentative, or in those cases which appeared to be successful there was failure to attempt to replicate the experimental results with different populations and a different setting.

2.5.2. General Effects

Imposition of sanctions on individual violators has effects on those so sanctioned, as discussed above, and indeed has effects on the general population as well. These are classified into:

- Educative effects, i.e., learning the offense is prohibited
- Moralizing effects, i.e., learning the offense is wrong
- Deterrent effects, i.e., fearing the punishment.

As with special or individual effects, it is straightforward to define the intended effects but difficult to measure them individually. The expectation that the general effects will occur as a result of a sanction or a sanctioning policy implies that the public that is to be affected has knowledge of the situation. With regard to traffic sanctions, the principal way in which people obtain information from which a general effect is expected is through the educational process associated with obtaining a driver's license. The more difficult communication method is to make drivers aware of changes in the law. As the laws are changed, the driver's handbook may be updated, but many drivers renewing their licenses do not bring themselves up-to-date by reviewing the new edition. The only other broad scale method of making the licensed drivers aware of changes in the law is to publish them in the newspaper and other communications media, but again very little emphasis or attention is given to these areas.

In addition to the public's knowledge that a threat exists, they must be aware of its applicability to them. They must be aware that there is credible enforcement taking place in connection with the threat. The public needs to have evidence of enforcement activities on the road.

Measurement of the overall effectiveness on the general public of traffic sanctions is made by examination of accidents and violations among samples of the general public. It is difficult, however, to assess the dependency of the change in these measures on the sanctioning activities.

2.6. Parsimony

Parsimony is defined as stating that the sanction should impose no more punishment than is necessary. This may be one of the more difficult elements to satisfy in that the determination of what is necessary is a highly subjective measure. The concept of what is a necessary level of punishment is perhaps best

referred to in terms of the other sanction criteria elements. Each of the others quantifies a sanction in terms of certain considerations. For example, evenness quantifies the sanction in terms of the sanctions imposed on others, economy in terms of costs, appropriateness in terms of public perception of what is deserving, rational allocation in terms of the highest need, and effectiveness in terms of the outcome. For each of these elements, one can specify a level of responsiveness, that is, a degree to which the element is to be satisfied. Parsimony then would be satisfied when each of the others were appropriately satisfied. If the others are not satisfied, then the amount of punishment imposed is either less or more than that which is necessary.

It is necessary to set up the objective of punishment and determine what is necessary to satisfy each of the various criteria elements that have been described previously. The need to impose only the amount of punishment that is necessary essentially imposes a moral obligation on the sanctioning agency to make certain that it avoids complacent conclusions about whether or not alternatives are available.

We have previously stated that when speaking of traffic offenses we are speaking of massive numbers, i.e., a substantial segment of the population, and that when sanctions are escalated, selective enforcement results. These facts together with the aforesaid moral obligation to impose no more punishment than is necessary suggests that parsimonious punishment policy is also practically important. It is practically important because to impose more punishment than is necessary is, in the context of our society, (1) to treat unjustly the whole class of offenders that are so threatened and that portion of it that is so punished and (2) to foster selective enforcement because deviation from parsimonious policy results in deviation from uniformity and the creation of greater disparity within the class of threatened offenders.

Section 3

TRAFFIC SANCTIONS STANDARDS

During the period of evolution in traffic offense sanctions, developments of a related nature were taking place in the area of criminal offenses. In an effort to establish uniformity, the American Law Institute (1962) undertook a project to develop the Model Penal Code.¹⁰ A principal part of the Model Penal Code is concerned with the sanctioning of offenders and as such could serve as a standard for legislative bodies to consider when addressing the issues of defining offenses and prescribing corresponding penalties.

The evolution of the traffic law system and its sanctioning subsystem suggests that a reasonable next step in the process would be to give consideration to the appropriateness of developing a standard related to traffic offense sanctions. Such a standard should be developed and judged in a framework based on the historical process described in Section 1. Additional factors must also be considered as fundamental to any discussion of standards for traffic sanctions. These are:

- Recognition of the constraints imposed by the large volume of traffic offenses
- Understanding of the purposes of both the sanctioning procedures and the sanctions themselves.

The massive nature of the traffic offense problem was described in Section 1; recall that the annual number of traffic arrests/citations is somewhere near forty-eight million. It is clear that with a problem of such proportions effective solutions are likely to be the result of the sanction system adapting to the problem to a greater extent than the problem being controlled by the system. Any standard that would attempt to unify sanctions for traffic offenses and would be applied in an operational setting must be drawn in consideration of the massive nature of these offenses.

¹⁰American Law Institute, "Model Penal Code," 1962.

The purposes of sanctioning procedures and the sanctions themselves were described in terms of the criteria for a traffic offense sanction in Section 2. An understanding of these purposes is necessary to development of a standard.

We will now summarize what issues a sanction standard should address, the efforts to date in the traffic offense standard area and prospects we see for standard development in the future.

3.1. Sanctioning Issues that Impact on Standards

Within the context of the introductory material presented above, it is possible to set out a number of issues that ought to be addressed in a traffic offense sanction standard. Since most of these issues are discussed in detail in other parts of the report, they are reviewed briefly here in the context of the standard.

The Scope of the Standard

The purpose and scope of a traffic offense sanction standard must be established as a first step in any development along these lines. The position of the standard in this respect can lie anywhere on a continuum ranging from a directive to legislative bodies (presumably, with a threat as backup) to a listing of suggestive guidance areas. The exact posture to be taken will depend on

- The position and authority of the body developing the standard
- The philosophy of the developers with respect to sanctioning issues and with respect to standards
- Their expectations regarding realization of an operational standard.

Goals and Procedures in Sanctioning Traffic Offenders

In addition to specifying the purpose of the standard, those with the task of drafting it must set forth the goals to be achieved through sanctioning activities and the procedures to be employed in their imposition. One of the fundamental issues in this area is the frequent conflict between, on the one hand, the principles of judicial autonomy and individualized justice and on the other, establishment of sanctioning strategies designed to maximize traffic safety related measures such as

accident and recidivism reduction. As we learn more about the special and general effectiveness of various traffic penalty modes, it might be possible to manipulate sanctioning policy to achieve a more desirable outcome in terms of risk management. On the other hand, the issue of judicial discretion with respect to the imposition of penalties on a given individual, if left completely arbitrary, can have a counterproductive influence on any such effectiveness optimization scheme, as well as on sanction evenness and fairness. The developers of a traffic sanctions standard must strike a balance between these two views. The key factor to resolution of this possible conflict seems to be the removal of arbitrariness from the proceedings.

Two issues related to goals and procedures that are closely tied together are:

- The shift in adjudication from the judicial forum to the administrative forum
- The decriminalization of most traffic offenses and the consequent removal of incarceration as a possible penalty.

Since most traffic offenses are in fact handled almost exclusively in terms of the (essentially administrative) sanctions of fine and license suspension, the trend away from the judicial forum follows naturally. Numerous studies have supported a formalized approach to the change in forum, and, to give recognition in the statutes to what has been occurring in fact, these studies have urged increased decriminalization of traffic offenses.

The issue of scientific research must also be addressed in any traffic offense sanctions standard. The need for continuous, on-going research to replicate proven hypotheses, to assess changes in behavior and to develop, if possible, and refine instruments for the prediction of future performance of sanctioned traffic offenders must also be made part of any standard to be promulgated.

Other issues principally bearing on the systematic operation of a traffic sanctioning program that must be addressed in a standard include:

- The requirement for statewide sanctioning techniques and management policies

- The degree of integration of programs in the adjudicatory (either judicial or administrative) and licensing agencies (e.g., driver improvement programs).
- Recognition of the dynamic interactions among enforcement, adjudicatory, and licensing agencies in response to changes in operational procedures.
- The ability of jurisdictions to implement the operational aspects of sanctioning practices resulting from adoption of a standard.

Many of the issues that must be considered in developing traffic offense sanction standards are still in need of further refinement. In fact, some of the investigations recommended in Chapter 5, Vol. II, and summarized in Section 5 will, if carried out, provide a basis for resolution of a number of the remaining questions in the area. There have been, however, preliminary activities that could be described as laying some of the groundwork for traffic sanction standards. These preliminary activities are described in the next section.

3.2. Previous Activities Bearing on Traffic Sanction Standards

To date, activities or publications bearing on standards related to traffic offense sanctions have been limited to the Uniform Vehicle Code,¹¹ the ABA Standards for Traffic Justice,¹² the National Advisory Commission on Criminal Justice Standards and Goals¹³ and a proposed NHTSA standard¹⁴ that made reference to traffic offense sanctions. In the criminal area, several standards have been promulgated. However, because of the trend away from the criminal area in traffic processing, their impact in traffic is quite limited.

¹¹ National Committee on Uniform Traffic Laws and Ordinances, Uniform Vehicle Code, 1971.

¹² American Bar Association Committee on the Traffic Court, Standards for Traffic Justice, Approved February 1975.

¹³ National Advisory Commission on Criminal Justice Standards and Goals, "Standards and Goals," 1973.

¹⁴ "Notice of Proposed Rulemaking," Federal Register, v. 37, No. 150, August 3, 1972, Part II.

The Uniform Vehicle Code (UVC) has been developed and promulgated as a Model Vehicle Code. In fact, many states' Vehicle Codes have been drawn with reference to UVC. As is the case in most vehicle codes,¹⁵ the adjudication and (judicial) sanctioning processes are not made part of the code. Thus, to the extent that UVC promulgates recommended penalties for offenders, it represents a reference source for those developing a traffic offense sanction standard. The sanction provisions of the UVC consist of specified penalties for certain serious offenses and general penalty ranges for misdemeanors and for felonies.¹⁶ This structure is followed by many states.

Part 4 of the American Bar Association (ABA) Standards for Traffic Justice, dealing with sanctions, is as follows:

Section 4.0--General Principle. Sanctions for traffic law violations should be based upon an informed judgment as to the penalty most likely to help the individual violator be a safer driver.

Section 4.1--Drivers' Records. The tribunal should have available the accurate and current state-wide driving record of each offender after judgment, but prior to sentence. The record should be consulted when sentence is imposed.

Section 4.2--Sentencing Alternatives. Traffic tribunals should employ a variety of sanctions to improve traffic safety. Courts should have the discretionary power to suspend or restrict driving privileges.

Section 4.3--Judicial Discretion. Courts should have discretion in the imposition of sanctions provided by law, including discretionary power to suspend terms of incarceration, license suspension, or revocation of drivers' licenses required by law.¹⁷

¹⁵ Exceptions include those states that have recently introduced administrative adjudication.

¹⁶ UVC §§11-901, 11-902 (c), 11-903, 11-904, 17-101 and 17-201.

¹⁷ ABA, 1975.

This description, when considered with the accompanying commentary, does not address the traffic sanctioning issues previously discussed. There is no discussion regarding the sanctions to be imposed on traffic offenders as a function of the offense type. Instead, the Standard discusses some important factors to be considered in the processing of offenders through the court, with no reference to the interplay between the judicial and other agencies in terms of this processing and its effect on offenders. In fact, there is no reference at all to the trend toward administrative processing, particularly in terms of which areas, in their opinion, should be retained in the courts and which should be removed.

In a wider sense, the ABA Standard does not speak to the broader goals of traffic sanctions, including general deterrence and risk management policy, and the overall system that processes traffic offenders. Instead, the ABA focuses on a narrow subsystem, emphasizing individualized justice.

Sanctioning standards have been published by the ABA¹⁸ and the National Advisory Commission on Criminal Justice Standards and Goals (NAC)¹⁹ and, although directed toward criminal law violations, they have some applicability to traffic offenses. In addition to the sanction related standards, the National Advisory Commission, on the basis of its perspective of the total criminal justice system, and its understanding of the relationship between traffic offenses and criminal offenses, has proposed a standard relating to the "Administrative Disposition of Certain Matters Now Treated as Criminal Offenses".²⁰ In this standard it is recommended that all traffic violation cases (with the exception of certain serious offenses) should be made infractions. Penalties for such infractions should be limited to fines, suspension or revocation of driver's license and compulsory attendance at educational and training programs. This recommendation should be considered by the drafters of any standard for traffic offense sanctions.

¹⁸ ABA, Standards Relating to Sentencing Alternatives and Procedures, Approved Draft, 1968.

¹⁹ National Advisory Commission (1973).

²⁰ NAC (1973), COURT Standard 8.2.

As part of its Highway Safety Program Standards, the National Highway Traffic Safety Administration (NHTSA) published a "Notice of Proposed Rule Making" in the Federal Register in 1972.²¹ Included among the proposed standards were several recommendations regarding traffic offense sanction matters.

Although these standards were not implemented after their initial publication, they do represent an attempt to develop some of the issues that we have indicated must be addressed in a traffic offense sanction standard.

²¹See Note 14, Supra.

Section 4

TRAFFIC OFFENSE SANCTION RESEARCH LITERATURE REVIEW

This section summarizes a review of the research literature relating to traffic offense sanctions. As such, it describes the current status of what is known about sanctions, particularly in terms of effectiveness.

Of all the components of the traffic safety system, there is no question that the adjudicative or traffic court component has been subject to the least amount of empirical research. Consequently, almost nothing is known about the traffic safety impact of court mediated sanctions and programs.²²

As a system, violator sanctions involve the entire process of detecting, adjudicating, sentencing, rehabilitating and controlling traffic violators. This process usually involves three largely independent agencies within a given state--the police, the courts, and the motor vehicle or driver licensing agency.

The unique role of the courts in the risk management process is complicated by the fact that traffic courts have two important objectives: adjudication and sanctions. The present review is only concerned with the sanction aspect, that is, how the severity and type of sentence affects the driving performance of the individual violator and the driving public. However, it must be recognized that the dual role of the courts has important reciprocal implications on the courts' effectiveness in simultaneously fulfilling both objectives.

The array of sanctions traditionally employed by courts against traffic offenders is well known: fines, jail sentences, probation, license suspension, and traffic school assignment. In drunk driving cases, referral to various social agencies and problem drinker rehabilitation programs is sometimes employed.

²²Arthur D. Little, Inc. A Reconnaissance of Public Education Programs for Traffic Safety. San Francisco, 1967.

Before considering data relative to the various sanctions, a word of clarification is in order regarding the concept "sanction effect". Some sanction programs are well publicized and result in increased levels of enforcement, e.g., more drivers cited, as illustrated in Figure 1. Under these circumstances, it is difficult to disentangle the effects of the sanction on the persons adjudicated, per se, from the deterrent effect of the program on the general population. Such general effects are to be contrasted with effects on specific target groups receiving specific treatments-- "special effects". Both special and general effects are potentially operative, as illustrated in Figure 1, even when a sanction is not new or well publicized. General effects are much more difficult to measure than special effects for several reasons. First, it is not possible to identify or define a recipient population of affected subjects. Second, experimental control and planned manipulation of variables is usually not feasible in evaluating general effects.

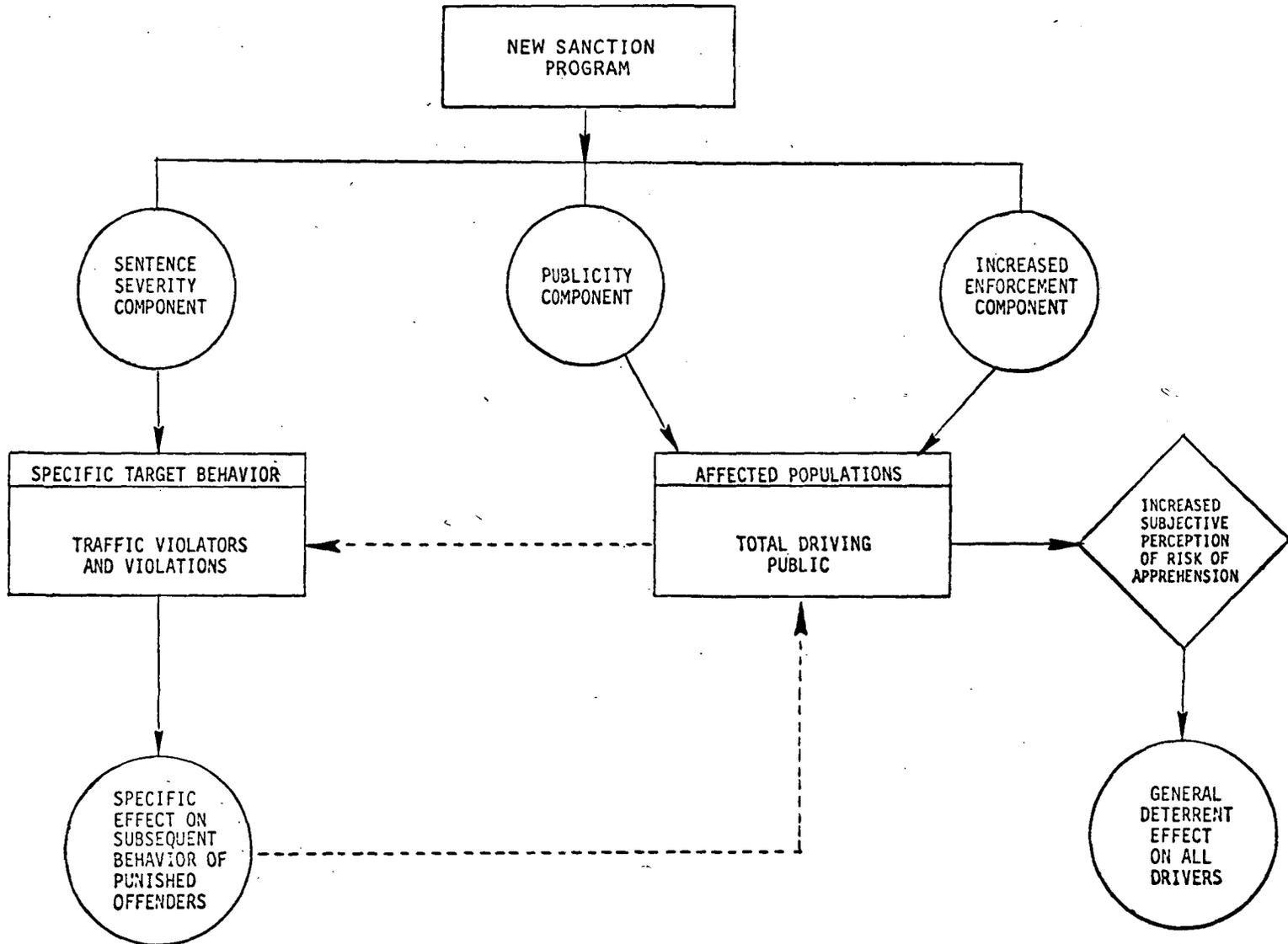
In the literature review, both special effect and general effect sanction studies are included. Unless the study is described as a general effect study, the reader can assume that it pertains to special effects. In evaluating special effect studies, one very important limitation must be borne in mind. No matter how rigorously conducted such studies might be, they can never address the issue of a sanction policy's total net impact, for the very reason that they do not address the question of general effects. It is entirely possible for a treatment or sanction having negligible or undetected special effects to exert substantial general deterrent effects on the general driving public. In many respects, general effects are more important than special effects because the number of drivers potentially affected (and hence the net impact) is usually much larger.

4.1. Fines and Jail Sentences

No experimentally controlled studies in which fines were systematically varied could be found in the literature. Only one retrospective, or correlational study relating fine to subsequent accident frequency was found. Finkelstein and McGuire (1971) reported the results of a large multiple polynomial regression analysis performed on the records of 111,000 California drivers.²³ Prior driver record information was used

²³Appendix F, Volume II.

Figure 1
 POTENTIAL "EFFECT" CHANNELS OF AN INCREASED SANCTION PROGRAM



to predict the subsequent one-year (1967) accident frequency of the sample. Fifteen variables emerged as statistically significant predictors ($P < .05$). The seven most important predictors, in order of importance, were: (1) amount of fine, (2) sex, (3) prior number of convictions, (4) age, (5) license class, (6) jail, and (7) traffic school attendance. What is particularly notable about the predictive power of fines in the Finkelstein-McGuire study was their superiority over prior conviction frequency and ability to survive the presence of several highly correlated prior driver record variables in the same equation.

A more recent correlational study on the effects of sanctions was conducted by Shoham in Israel.²⁴ This study assessed variations in the type of sanction administered: warning, bail forfeiture, fine, conditional license cancellation, license cancellation, conditional imprisonment, and imprisonment. The major findings were:

1. Prior sanction severity was unrelated to the gravity of subsequent offenses.
2. More severe sanctions for the first offense were associated with increased recidivism (frequency of subsequent offense).
3. More severe sanctions were associated with longer time lapses between subsequent offenses.

Because findings number 2 and 3 appear contradictory, Shoham develops an explanatory hypothesis regarding the composition of the offender population.

It would be wrong to infer from Shoham's results that more severe sanctions do not have a deterrent effect on violators or that they result in increased recidivism. This is because the severity of a sanction is often a reflection of the adjudged seriousness of the offense and the judge's perception of the offender's attitude and responsiveness. Consequently, offenders receiving light sanctions are likely to be different (lower recidivism expectancy and more positive response to sanction) than persons receiving heavy sanctions.

²⁴S.G. Shoham, "Punishment and Traffic Offenses," Traffic Quarterly, (1973), 61-73.

Another correlational study of the effects of penal sanctions on convicted drunk drivers in the Netherlands sought to determine, among other things, whether it was possible to influence recidivism by varying sentences.²⁵ It was found that severe prior sentences had only a very slight relationship to reduced recidivism, and that license suspension had only a slight effect in deterring recidivism. These results must be qualified by the known tendency for drivers with the worst prognoses to receive the severest sanctions. This would tend to obscure any deterrent effect that severe sanctions might have.

Blumenthal and Ross²⁶ evaluated the relative effectiveness of fines, standard probation, rehabilitative probation and jail in improving the subsequent driving performance of (first conviction) drunk drivers. The groups did not differ significantly on any of the one-year post treatment comparisons, which consisted of accidents, moving violations, points, and DWI convictions. However, because of significant selection biases, it is possible that treatment effects could have been obscured.

In a related study dealing with routine traffic violators, Blumenthal and Ross²⁷ evaluated the effects of required court appearance on the subsequent driving records of several thousand violators. The treatment groups evaluated included warning only (no citation or court appearance), mail-in fine, required court appearance, optional court appearance, and court clerk appearance. When biases that developed as a result of judicial discretion were controlled statistically, the court-appearance groups were not consistently superior to the non-appearance groups. The authors correctly concluded that their results do not support the commonly held assumption that face-to-face contact with a judge necessarily results in less recidivism and greater traffic safety benefits.

²⁵ Buikheisen and Steenhuis. "Effectiveness of Penal Sanctions as an Instrument to Combat Recidivism among Subjects Convicted for Drunken Driving." 1972.

²⁶ M. Blumenthal and H.L. Ross. Two Experimental Studies of Traffic Law, Vol. I: The Effects of Legal Sanctions on DUI Offenders. Contract No. DOT-HS-249-2-437, University of Denver, College of Law, 1973a.

²⁷ M. Blumenthal and H.L. Ross. Two Experimental Studies of Traffic Law, Vol. II: The Effects of Court Appearance on Traffic Law Violators. Contract No. DOT-HS-249-2-437, University of Denver, College of Law, 1973b.

4.2. License Suspensions

Research has consistently demonstrated that suspensions and revocations are not very effective in controlling habitual traffic offenders. In the only true experimental evaluation reported in the literature, Schuster²⁸ randomly varied action severity on a sample of Iowa violators. The results indicated that drivers receiving more severe actions, e.g., suspensions, did not have fewer subsequent convictions than drivers receiving light actions, e.g., warning and probations. In a very recent study, Kaestner et al²⁹ reported similar findings for Oregon drivers. Drivers receiving suspensions had more subsequent convictions than the no-treatment controls, whereas drivers receiving (restricted driving) probation or a Defensive Driving Course (DDC) did slightly better than the controls ($P < .20$). The correspondence with Schuster's findings is striking, shedding further doubt on the efficacy of license suspensions for chronic traffic offenders.

A highly innovative experiment on the effectiveness of license suspensions was recently concluded in the State of Washington by Paulsrude and Klingberg.³⁰ The objective of this study was to determine whether the Washington State Department of Motor Vehicles Driver License Suspension Program for continuing traffic offenders is effective in producing improvements in subsequent driver performance.

A group of problem drivers were randomly assigned to one of three treatment programs:

1. A group potentially subject to suspension
2. A contacted non-suspension group

²⁸D.H. Schuster. "The Effects of Official Action Taken Against Problem Drivers," Proceedings of the Iowa Academy of Science, 77 (1970), 315-332.

²⁹N. Kaestner and L. Speight. Oregon Study of Drivers License Suspensions. Oregon Department of Transportation, Salem, 1974.

³⁰S.P. Paulsrude and C.L. Klingberg. Driver License Suspension: A Paper Tiger? Research and Technology Division, Department of Motor Vehicles, Olympia, Washington, Report 032, 1975.

3. A no-contact control group.

The findings can be summarized as follows:

- A "before-after" analysis revealed that each group exhibited a substantial reduction in both accident and citation involvement during the 12 month follow-up period.
- The authors also reported that at least one-third of the suspended drivers continued to drive during the suspension period, and that enforcement of the "driving while suspended" statute was very nominal.
- Despite the largely negative findings, the authors recommended continuation of Washington's suspension program based on its potential as a "general effects" deterrent.

Because of the small sample sizes, the study cannot be regarded as proof that license suspensions have no effect. Had the authors been able to use sample sizes of approximately 500 subjects per group and obtained the same results, the indicated difference trend in favor of the suspended group would have been statistically significant. The Washington study shows that the threat of imminent license suspension does not have a large effect on driving record, but that conclusions regarding whether it has any effect at all require further experimental replication.

What is particularly damaging about the data on license suspension is their apparent failure to markedly suppress accidents and convictions during the period of suspension. One might expect that driving exposure would be substantially reduced during the suspension interval and that suspended drivers would be motivated to drive more carefully during suspension to avoid citations. That this is not necessarily true was established as early as 1965 by Coppin and Van Oldenbeek,³¹ who reported that two-thirds of a sample of revoked

³¹R.S. Coppin and G. Van Oldenbeek: Driving Under Suspension and Revocation: A Study of Suspended and Revoked Drivers Classified as Negligent Operators, Report #18, California Department of Motor Vehicles, Sacramento, 1965.

California negligent drivers were involved in citations or accidents while under revocation.

The recent and more comprehensive California study reported by Finkelstein and McGuire (1971) suggests that the incidence of driving under suspension has actually worsened, at least in California.

An examination of the reported data³² by type of suspensions indicates that the groups who violated their suspensions at the highest rates were the various negligent operator discretionary action groups, who represent chronic traffic violators. Most of the drivers in mandatory action groups were involved in significantly fewer citations and accidents while under suspension.

Many authorities, such as Kaestner and Speight (1974), have concluded that suspensions are virtually worthless as deterrents. However, this conclusion is inextricably bound to the operational context in which drivers drive and violate laws. One potentially critical system parameter is the limited extent to which drivers who violate their suspensions are appropriately adjudicated and penalized for this major offense.

As an alternative to mandatory license suspensions in drunk driving cases, North Carolina amended its statutes in 1970, giving judges discretion to restrict a first offender's license instead of requiring outright one year revocation. The primary motivation for this amendment was not leniency, but rather the observation that, due to the harshness of the mandatory one year license revocation, drunk driving cases were not aggressively prosecuted and low conviction rates resulted.³³ Johns and Pascarella evaluated the traffic safety impact of the North Carolina law change by comparing the subsequent one-year driving records of a

³²Table C-40, Vol. II of the Report. The data in this section were actually compiled and analyzed by the California DMV research staff for publication in Finkelstein and McGuire.

³³Themis R. Johns and E.A. Pascarella. An Assessment of the Interim Driving License Amendment to the North Carolina Statutes Relating to Drunk Driving. The University of North Carolina Highway Safety Research Center, Chapel Hill, North Carolina, 1971.

sample of restricted first-time drunk driving offenders with a random sample of North Carolina drivers and a sample of revoked first-time drunk driving offenders. The restricted drunk driving offenders did not differ significantly from the random driver group on subsequent accident frequency and had significantly fewer moving traffic violations. However, the restricted group did have significantly more subsequent DWI convictions. When the samples were matched for age, sex and race, the same trends prevailed with respect to the subsequent accident and violation comparisons.

When comparing the restricted drunk driver group with a sample of revoked first-time offenders on subsequent accidents, the authors found that the revoked group had significantly fewer accidents. Thus, there was some evidence that issuance of a restricted license (as opposed to revocation) may have had a negative traffic safety impact. Such an interpretation would have to be considered in terms of what would have happened to the restricted drivers had they been revoked. It should be noted that the study was not a controlled experiment, but a retrospective, ex post facto evaluation. It is therefore possible that all relevant variables were not controlled, such as selective differences between first offenders who are restricted and those who are revoked.

Johns and Pascarella (1971) concluded their analysis as follows:

Whether or not these results constitute success or failure of the limited license program depends somewhat on the reader's philosophical view. If one wishes to compare the limited license recipients with the revoked group then their record is on the basis of a higher accident rate. On the other hand, these people were driving legally and, presumably, they could drive more, yet they did not have any more accidents than drivers at random. Therefore, in return for the risk that was no higher than the average risk, a certain group of people were permitted to drive legally to jobs and other places. Thus, if one chooses to compare this group with the revoked group and sees no merit in letting these people drive then the program is unsuccessful. If on the other hand, one is willing to accept the comparison with

the random samples, the program seems worth the risk.³⁴

4.3. Traffic Schools

A substantial amount of research has been conducted on DMV-mediated individual and group driver improvement programs. Critical reviews of much of the work can be found in Kaestner³⁵ and more recently, Goldstein³⁶ and McGuire, Bernstein, et al.³⁷ Court-mediated programs have been much less thoroughly researched.

Before summarizing the research on court traffic schools, it should be noted that court-oriented and DMV-oriented programs have similar target populations and content. They both deal with repeat traffic violators and some form of driver improvement treatment. The major difference is operational--one emanating from the court's discretionary sanction authority as part of the adjudication process and the other from the DMV's administrative license control authority. To the extent that the populations and treatment content are identical (and sometimes they are), research findings on one jurisdiction are probably generalizable to the other.³⁸ However, the present review is limited to studies of court-oriented programs.

In one of the few experimentally controlled studies of court traffic schools, Owens³⁹ evaluated the effectiveness of the Anaheim-Fullerton Municipal Court Driver Improvement School. To be eligible for assignment, each driver had to have three or more convictions in the twelve months prior to adjudication. Four hundred drivers and four experimental conditions were involved--100 drivers in each group. The four experimental conditions resulted from the

³⁴ Ibid., p. 10.

³⁵ Noel Kaestner. "Research in Driver Improvement--The State-of-the-Art," Traffic Quarterly (October, 1968), 497-520.

³⁶ Leon Goldstein. Driver Improvement: A Review of Research Literature. California Traffic Safety Education Task Force, Department of Education, 1974.

³⁷ J.P. McGuire, D.J. Bernstein, et al. State Driver Improvement Analysis: Report on Program Status and Recommendations. Public Systems, Inc., 1976. DOT-HIS-801-842.

³⁸ One theoretical advantage of court-mediated programs is their closer temporal contiguity to the driver's latest violation.

³⁹ C.N. Owens. "Report on a Three-Year Controlled Study of the Effectiveness of the Anaheim/Fullerton Municipal Court Driver Improvement School," Municipal Court Review, 7:2, 1967.

combination of probation and traffic school, viz., probation, traffic school, both and neither.

All treatments received a fine, and assignment to treatment was random, except for time of assignment. The traffic school consisted of four 3-hour meetings. Only the subsequent violation data were analyzed for significance because of the small sample size. No significant differences occurred in the first year, although all treatments were directionally superior to the control group (fine only). In the second year, there was a significant main effect due to traffic school and a traffic school \times probation interaction ($P < .10$). Combining probation with traffic school decreased the effectiveness of the school, a fact that suggests the need for additional investigation.

Harano and Peck⁴⁰ evaluated the effectiveness of a specially developed Uniform Driver Improvement School Curriculum (UDIS). Roughly 4,000 repeat violators were to be randomly assigned to the UDIS or control (fine only) condition. However, the judges deviated from the random assignment scheme, assigning more drivers with highly negligent records to the UDIS.

Subsequent driving record comparisons for males (after adjustment for biases) were significant in favor of the UDIS, showing a 10.5 percent reduction in accidents ($P < .05$) and a 5.9 percent reduction in convictions ($P < .10$). In addition, the analysis indicated that the effectiveness of the UDIS was dependent on the subject's prior driving record. Drivers showing the largest accident reductions were characterized by:

- A worse prior conviction record
- No prior accidents
- Being older
- Being older combined with few prior convictions
- Being younger combined with more prior convictions

⁴⁰ R.M. Harano and R.C. Peck. The Effectiveness of a Uniform Traffic School Curriculum for Negligent Drivers, Report #37, California Department of Motor Vehicles, Sacramento, 1971.

None of the comparisons were significant for females, but the sample sizes were limited.

The authors also compared the UDIS effectiveness with the effectiveness of the California DMV's Group Educational Meeting (GEM) program. The net effects were almost identical, but the GEM was more cost effective because of its inexpensiveness (one hour vs. 18 hours).

The demonstration of treatment \times subject variable interactions should be regarded as an important finding, since it implies that one type of program will not be equally effective for all types of violators.

4.4. More Extensive Treatment Approaches and Drunk Driving Countermeasures

Most research on intensive treatment modalities has been confined to the problem drinker and drinking driver, such as those being used in the various ASAP programs. This is partly due to cost considerations, but is undoubtedly also reflective of the public attitude toward deviant driving. The harm inflicted by drunk drivers is now generally accepted and there is substantial opinion to the effect that problem drinkers require extraordinary countermeasures. The habitual violator of "minor" traffic laws is not considered in the same light. This attitude is in some respects unfortunate, because the problem drinker has not proven to be very amenable to treatment, nor has it been convincingly demonstrated that drunk drivers are higher accident risks than are persistent habitual traffic offenders.

A review of the reports available from the various ASAP programs failed to convince these reviewers that any of the techniques are effective in reducing recidivism or accidents. In a recent paper, Nichols (1974)^{4 1} concluded that the overall trends for the ASAP programs were in a positive direction, but the data he cited are not very persuasive. In the majority of the ASAPs, treated and control groups have not been comparable because of selective, non-random assignment procedures.

A recent review of the literature of drunk driver rehabilitation and the ASAPs raises further questions

^{4 1}J.L. Nichols, "The Status of ASAP Rehabilitation Efforts," Traffic Safety: Driver Improvement - 1973, National Safety Congress Transactions, v. 24. National Safety Council, Chicago, 1974.

concerning the effectiveness of the therapeutic model. In response to a California Legislative Resolution,^{4 2} the Department of Motor Vehicles evaluated the viability of a "customized treatment approach" to the drinking driver.^{4 3} The following conclusions were reached:

- Drunk drivers can be categorized into subgroups with a moderate degree of reliability and validity.
- The medical model of alcoholism has yet to be validated.
- Medical advisory boards are not viable mechanisms for the diagnosis and referral of problem drinking drivers.
- A customized, therapeutic approach to the drunk driver has not been shown more effective than punitive sanctions or non-customized approaches.
- License suspensions are somewhat effective in reducing violations and accidents during the period of suspension.
- There is no evidence that the total system approach embodied in the various ASAPs has any impact on the accident fatality rates of the target communities.

The comprehensive review of Ellingstad et al^{4 4} was included in the California study. Ellingstad concluded that the research design of the majority of the ASAPs was so poor that in most instances valid inferences could not be made regarding program effectiveness. On the issue of total impact, only one study reporting positive results was considered by Ellingstad to be methodologically strong. However, a review of this study by the California DMV researchers (Epperson, et al, 1975), revealed several methodological flaws not evident from Ellingstad's review.

^{4 2} SCR 44, 1972.

^{4 3} W.V. Epperson, et al. Final Report to the Legislature of the State of California in Accord with... (SCR 44, 1972). California DMV, (1975).

^{4 4} V.S. Ellingstad, et al. Interim Assessments of Total Project Impact: Alcohol Safety Action Projects. Human Factors Laboratory, University of South Dakota, 1974. Contract No. DOT-HS-191-3-759.

Although not ASAPs, the University of Southern California (USC) Drinking Driver Studies^{4 5, 4 6} were included in the California review. The original study by Didenko, et al had produced a largely negative answer to the question of reducing alcohol related crashes and arrests through drunk driver treatment programs, including psychotherapy. Newman, et al, reanalyzed the Didenko data after adding a longer follow-up period for accumulating criterion data (total number of alcohol related offenses). They reported that all treatment groups had better records than the control groups, and that the group receiving the Alcoholics Anonymous treatment benefitted most. It was therefore concluded that the negative findings of Didenko, et al, were primarily due to using too short a follow-up interval for stable results. However, in view of the strength of some biases present and the possibility of initial differences in treatment responsiveness, the adequacy of the statistical controls is open to challenge.

Another California study not included in Ellingstad's review was the Orange County Alcohol and Traffic Safety Project Referral Center Program (OCATS). Based on the preliminary report,^{4 7} this appears to be one of the better designed ASAPs. All criterion comparisons thus far favor the treatment group, although the only one reaching statistical significance ($P < 0.05$) was on a nonalcohol variable (nonalcohol moving violations).

One of the primary objectives underlying the ASAP concept was to demonstrate whether an integrated system of intensive alcohol countermeasures had discernible "general effects" on the fatal accident rate of a community. The rehabilitation of drunk driving offenders was only one aspect of each system of countermeasures. Intensive publicity and educational campaigns were used to reach a wider range of drivers, and the enforcement rate for issuing drunk driving citations was greatly increased.

NHTSA (Nichols, 1974) attempted to answer the question of total system impact by a review of existing ASAP

^{4 5} O. Didenko, A. McEachern and S. Pollack. Drinking Driver and Traffic Safety Project. Public Systems Research Institute, University of Southern California, U.S. DOT-FH-11-7099. Final Report, 1972.

^{4 6} R.J. Newman, S. Kirby and A.W. McEachern. Drinking Drivers and Their Traffic Records. Social Science Research Institute, University of Southern California, 1974. DOT-HS-101-2-452.

^{4 7} F.L. McGuire. A Preliminary Analysis of the Effectiveness of Assigning Drinking Drivers to Various O.C.A.T.S. Countermeasures. Unpublished draft, 1975.

data, claiming evidence of a positive impact when limiting analysis to the eight projects with two full years of data. (The nineteen projects with only one year of data failed to show significant accident reductions.) The fact that a proportionally greater reduction occurred with nighttime accidents was interpreted by Nichols as additional evidence of program impact, since this is when the majority of alcohol accidents occur.

This NHTSA analysis was severely criticized by Zador (1974) for failing to meet minimum requirements of scientific validity.⁴⁸ Using interrupted time series techniques with matching control areas, Zador found no evidence of a decline in accident rate attributable to the ASAP. Where "before-after" declines were evident, similar declines occurred outside the areas covered by the ASAPs.

Authorities such as Campbell and Ross (1968)⁴⁹ have consistently emphasized the need to establish comparison areas and to compute multiple time series when using interrupted time series methods to make causal inferences regarding the effects of an intervention. Without a comparison area to provide a time series baseline, all one can conclude is that a statistically significant perturbation occurred in the time series at the time of the intervention. To attribute the unexpected perturbation to the effects of a given intervention requires rejection of rival hypotheses, such as the confounding effects of extraneous variables covarying with time and intervention. Such rival hypotheses cannot usually be discarded on the basis of a single time series analysis.

Based on the reported evidence, these reviewers do not believe any definitive inferences can be made regarding the impact (general effect) of ASAP systems on accident rate. If anything, the evidence in the direction of no impact seems stronger than the evidence suggesting an impact. It therefore seems reasonable to conclude that the ASAPs did not have a

⁴⁸P. Zador. Statistical Evaluation of the Effectiveness of Alcohol Safety Action Programs. Insurance Institute for Highway Safety, 1974.

⁴⁹D.T. Campbell and H.L. Ross. "The Connecticut Crack-down on Speeding: Time-Series Data in Quasi-Experimental Analysis," Law and Society Review, 3:33, 1968.

substantial effect on accident rate, such as encountered in the 1967 British Road Safety Act, on the assumption that truly substantial effects would have been more consistently and evidently demonstrated through time-series analysis.⁵⁰

It is conceivable that the 1967 British Act may have had a greater deterrent impact because its emphasis was more on detection and punishment than rehabilitation. Many authorities have assumed that support for tough laws against drunk driving can be found in the so-called Scandinavian experience. Sweden and Norway have extremely tough laws against drunk driving, including mandatory jail for first offenders and low BAC requirements for conviction. In a recent study, Ross (1975a)⁵¹ evaluated the evidence on which the belief in the effectiveness of these laws is based and found the arguments to be non-persuasive. He then applied the interrupted time series technique to fatal accident time series in Norway and Sweden. These techniques failed to demonstrate any effects attributable to enactment of the laws, and from this analysis, Ross concluded that there was no evidence that these laws have had significant deterrent effects on fatal accidents. Ross then speculates that the reason the Scandinavian laws did not have the same impact as the British Act is because the Scandinavian laws failed to create the necessary degree of subjective belief in the probability of apprehension and punishment.

Ross's analysis and interpretation can be qualified on several grounds as is shown in Chapter 4, Volume II. Ross is correct in pointing out that the belief in the deterrent value of the Scandinavian drunk driving sanctions (mandatory jail sentence, etc.) cannot be substantiated from the available data, and he is also probably safe in concluding that the effect of the laws on accident rate was not a dramatic one.

⁵⁰ It should also be noted that if the ASAP program is conceived as one grand experiment, with each of the 39 individual ASAPs as subexperiments, then one would expect approximately two of the ASAPs to show significant accident reduction even if none were effective (assuming a one-tailed 0.05 alpha level). This phenomenon is known as chance significance and must be taken into account any time a large number of significance tests are performed on a set of data. Thus, even if one ASAP was scientifically rigorous and was associated with an accident reduction at the 0.05 level, the reduction could be questioned if all other ASAPs showed non-significant impacts.

⁵¹ H.L. Ross, "The Scandinavian Myth: The Effectiveness of Drinking-and-Driving Legislation in Sweden and Norway," The Journal of Legal Studies, Vol. IV, No. 2, June 1975.

However, it is equally clear that the Scandinavian sanctions could have strong deterrent effects on drunk driving and significant effects on alcohol-involved accidents without being detectable through a time-series analysis of gross fatality rates.

The California Department of Motor Vehicles report to the Legislature⁵² also evaluated the effectiveness of license suspension for convicted drunk drivers. Two types of analyses were conducted, neither of which were controlled experiments. The first compared the driving record of drunk drivers prior to suspension with their records during suspension. The second analysis compared the records of a group of suspended repeat drunk drivers with a group of repeat drunk drivers who avoided suspension by having their prior convictions dismissed on constitutional grounds. In both cases, the results suggest that suspension had a significant effect in reducing convictions and accident frequency--probably by reducing miles driven and/or causing suspended drivers to drive more carefully to avoid detection of non-licensed driving. Since suspended drivers are not supposed to drive at all, and therefore should have perfect records, these results are not very remarkable, and tell us nothing about how enduring the effects are subsequent to license reinstatement. The results do suggest, however, that suspension has some traffic safety value, despite a low level of enforcement in California.

Only one court-oriented study using innovative treatment modalities for habitual traffic offenders could be found in the literature.⁵³ This study attempted to determine whether recidivism can be further reduced by "sentencing" an offender to the treatment which is optimal for him. All subjects were teenagers with at least three violations in the past twelve months.

The final report on the effects of the customized treatment assignments on recidivism was not available at the time of this writing. Although the research methodology and treatment concepts employed in this study are very impressive, the present reviewers have some doubt as to whether the sample sizes are sufficient for detecting treatment effects and constructing

⁵² Epperson, et al (1975).

⁵³ L.H. Whinery, R.E. Hilbert and W.A. Nicwander. The Predictive Sentencing of 16-18 Year Old Habitual Traffic Offenders (Third Interim Report). Municipal Court, Norman, Oklahoma, 1973.

multiple prediction equations on driver record criteria.⁵⁴

4.5. "Crackdown" Sanction Programs, Deterrence and Behavior Modification

Wilde (1971)⁵⁵ cites convincing evidence that increasing enforcement or the public's subjective perception of the probability of being caught and jailed can dramatically decrease deviant or non-compliant behavior. However, he argues that threats of increased enforcement and sanction severity must be followed up by observable increases to prevent extinction of effects. Furthermore, punishment per se, is regarded by many behavioral scientists as an ineffective agent for eliciting enduring behavioral change.

The critical factor in behavior change or control is the probability of reinforcement (positive or negative), which means that to maximize the deterrent effect of a law through aversive methods one should increase the probability that negative sanctions will result from violations. The positive reinforcement of desirable behavior is generally regarded as a superior method of behavior change, because the reinforced behavior tends to remain after positive reinforcement has been withdrawn, whereas negatively reinforced behavior tends to extinguish soon after the aversive contingencies have been removed. In Volume II successful examples of decreasing deviant driving behavior through positive reinforcement are described, and literature providing evidence that punitive legislation can have a deterrent effect on deviant driving is reviewed.

*May depend
on how long
the individual
is in a high
risk category*

4.6. Systems and Management Aspects

The importance of program management in maximizing the attainment of traffic safety goals cannot be

⁵⁴In a personal communication (1976), Judge Whinery indicated that none of the tailored treatments was significantly superior to the standard treatment in reducing recidivism. He also indicated that the final report is in preparation.

⁵⁵G.J.S. Wilde. Road Safety Campaigns: Design and Evaluation. Organization for Economic Cooperation and Development, Paris, 1971.

overemphasized, because the manner in which agencies are organized and their conception of goals, problems and priorities ultimately determines which problems are addressed, how policies are executed, the types of countermeasures adopted and the extent to which program effectiveness is adequately monitored. In a recent paper, Blumenthal (1974) concluded:

Driver improvement begins with management improvement...and management can be no better than their understanding and definition and redefinition of the fundamental problems of the system for which they are responsible.⁵⁶

Finkelstein and McGuire (1971) reported numerous defects in California's operation which were related to the "systems" nature of traffic safety. Similar problems exist in states other than California. In order for effective sanctions and driver improvement techniques to have maximum impact, they must be administered in an integrated, coherent manner and the agents involved in their administration must cooperate by promptly sharing and transmitting information needed in making effective treatment decisions. It is these authors' belief that eliminating operational defects in program execution/coordination and adopting a risk management systems orientation to driver control will contribute more to traffic safety than will changing the sanctions and countermeasures that are employed.

Based on systems and risk management considerations, these reviewers believe that the adjudication of traffic offenses by administrative hearing officers would be superior to the present system. Joscelyn and Jones (1972)⁵⁷ stop short of such a radical change, suggesting instead that the adjudication and sanction functions be separated jurisdictionally--the courts continuing to adjudicate, and sanctions determined by an administrative agency. To these



⁵⁶Murray Blumenthal. "A Basis for a Model Driver Improvement Program." Invited paper prepared for the California Traffic Safety Education Task Force Workshop on Driver Improvement and Driver Education, State of California, February, 1974.

⁵⁷K.B. Joscelyn and R.K. Jones. A Systems Analysis of the Traffic Law System (Summary Volume). Department of Transportation, Contract No. FH-11-7270-72-1, Institute of Research in Public Safety, Indiana University, Bloomington, 1972.

reviewers, such a proposal would result in added costs and would not substantially improve the problem of court-DMV coordination.

In a recent paper Streib (1974)⁵⁸ discusses deficiencies in traditional taxonomies for describing traffic law systems. He recommends a goal-oriented classification scheme based on jurisprudential policy, addressing such issues as:

- To what extent is the system oriented to achieve a high degree of safety or a high degree of traffic flow?
- Are system personnel and agencies legalistic or laissez-faire in their approach?

Streib presents a number of quantitative indicators for classifying the legislative, law enforcement, prosecution, adjudicative and sanction components. Four jurisprudential classes are tentatively identified: laissez-faire, flow-oriented, safety-oriented and legalistic. The utility of this or any other taxonomical scheme for traffic safety will ultimately depend on the degree of resolution achieved in clustering the various traffic law systems and relating the typologies to system performance measures (e.g., accident and recidivism reduction). The tendency for system operators to resist enforcing sanctions and countermeasures represents a major obstacle to the attainment of optimum traffic violation deterrence.

In a recent paper, Ross (1975b)⁵⁹ reviewed five of his own studies⁶⁰ on the "general effects" of changes in traffic laws, and proposed a tentative model to account for certain incidental aspects of these studies. Ross observed that in four of the five studies reviewed, law changes which substantially increased sanction severity were accompanied by compensating mechanisms that moderated severity of the sanction. In the case of traffic laws, the

⁵⁸ V.L. Streib. "Classifying Traffic Law Systems According to Jurisprudential Policy," Journal of Safety Research, 6:52-59 (June, 1974).

⁵⁹ H.L. Ross. "The Neutralization of Severe Penalties: Some Traffic Law Studies," Preliminary Manuscript, University of Denver, College of Law, 1975(b).

⁶⁰ The studies are: (1) Connecticut Speed Crackdown Study (1955); (2) Chicago Drunk Driving Jail Study (1970); (3) Denver Court Study (1974); (4) Finnish Drunk Driving Legislation (1950); and (5) British Road Safety Act (1967).

model predicts that substantial increases in sanction severity lead to the following: police stabilization or reduction in arrests; prosecutors reducing the severity of the charge; judges and juries failing to convict or circumventing the penalties; system loopholes enabling those convicted to avoid the sanctions.

Ross speculates that the neutralization of sanctions stems from two sources. First, the increased penalties may conflict with norms of fairness and appropriateness. Second, the system operatives are responsive to the pressures and expectations of others both within and outside of the legal system. Ross concluded his analysis with the following observation:

[I]f it is desired to increase actual penalties...it may be necessary for the law-giver simultaneously to introduce measures limiting the discretion of legal actors and reducing their ability to resist the initiated change.⁶¹

These comments by Ross as well as the other studies cited in this section serve, once again, to demonstrate that sanction imposition is not, and cannot be viewed as, an isolated activity. It is, in fact, one part of a complex, dynamic process in which the several participants respond at varying rates and to varying degrees to the behavior of the others. This important phenomenon must be taken into consideration in any discussions regarding the sanctioning process.

⁶¹Ross, 1975b, p.8.

Section 5

AGENDA FOR RESEARCH IN TRAFFIC SANCTIONS

In preceding sections we have summarized the establishment of a framework for consideration of traffic offense sanction policy and for the possible development of sanction standards. We have also described by means of a review of the research literature, the state of our knowledge regarding the effectiveness of various sanction modes. With this background in policy goals and the current status of what is known, it is appropriate to indicate what areas related to traffic offense sanctions are in need of further investigation. In developing this agenda, emphasis has been placed on describing the types of research that should be conducted in terms of sanction variables to be manipulated, sanction program audience, and research techniques and constraints. Beyond these considerations, there is the need to discuss interpretation of the research results, and the impact of the research on the subject jurisdiction, and on policymaking procedures.

5.1. Traffic Offense Sanction Evaluation and Research Requirements

It is essential that one distinguish between general and special effects. General (indirect) program effects--those pertaining to the general population--are virtually impossible to measure with complete scientific rigor. Correlational studies and quasi-experimental techniques, e.g., interrupted time series, and regression discontinuity designs, must be resorted to. An example of a correlational approach would be to quantify or code the sanction policies of the various states, include all possible biasing factors as control variables (covariates) and regress the entire pool of variables against various criterion measures. The following criteria might be considered: injury and fatal accidents, normalized traffic conviction rate, and transitional probability of progressing from marginal habitual offender status to habitual offender status. The results would very likely be equivocal but might be sufficiently suggestive to have made the effort worthwhile. Multiple interrupted time series methods and regression discontinuity designs are more definitive but more difficult to apply operationally. Despite the impressions given

by some users, these methods seldom (if ever) attain the same rigor as a controlled experiment unless employed in the context of a randomized experimental design. Also, the procedures usually have low statistical power, meaning they can only detect very large effects.

"Special" (direct) program effects are those pertaining to the individual who is sanctioned. Special effects are more conducive to measurement because one can identify a specific target population and sample the drivers who receive the treatment or are processed by the program. By randomly assigning target subjects to treatment (program) and control (no program treatment) conditions, the classical scientific research design for making functional cause-effect inferences is realized.

Other requirements for a sound research agenda are that evaluation be conducted in a coherent, programmatic fashion and that positive findings be replicated at least once before definitive conclusions are drawn. It is also essential that very large samples be used in order to obtain adequate statistical power for decision making. This requirement and its implications for research conclusions are discussed in detail below.

5.1.1. Experimental Sample Size

Because of the insensitivity and low stability of driver performance/traffic safety criterion measures, sample sizes should be in the range of 2,500-10,000 subjects per experimental condition. Even with samples of this magnitude, cost effective accident reductions could often go undetected in situations where treatment costs are low, e.g., warning letters, and accident costs are assumed to be high, e.g., several thousand dollars per accident.

Experimenters who conduct driver improvement studies with subject populations less than 1000 run extremely high risks of producing false negative findings (Type II error). If sufficient subjects are not available for the desired power, the preferred Type II error rate can only be maintained by permitting a higher Type I error (alpha) or increasing the size of the minimum detectable treatment difference.

The power of a statistical test represents the probability of rejecting a false null hypothesis--e.g., rejecting the hypothesis of no treatment effects when

a real effect exists. By subtracting this index from one, the probability of a Type II error is determined. The Type II error is of critical importance since it represents the probability of concluding that a treatment is ineffective when it really is effective. In traffic safety research and program evaluation, Type II errors can therefore lead to elimination of effective programs. For this reason, it is essential that experiments be designed with sufficient statistical power for minimizing Type II errors.

The most critical issue in determining the necessary sample size for an experimental evaluation is the minimum acceptable treatment effect. In other words, how many accidents does the countermeasure have to prevent to be worthwhile? If a cost benefit model is used, the minimum acceptable accident effect may turn out to be extremely small. It is important to recognize that the concept of defining a minimum acceptable quantified effect in terms of cost effectiveness is inextricably tied to the assumptions and validity of cost-benefit analysis, and that the results are highly sensitive to variations in treatment program cost and accident cost estimates. A cheap program can result in trivial accident reduction and still be cost beneficial, whereas an expensive program can result in substantial accident reduction and not be cost beneficial. It might be advantageous to define minimum effects and statistical power requirements in terms of a broader concept of utility, in which both total accidents prevented and cost savings are considered along with other parameters in forming a net utility function that more adequately characterizes the societal benefits of accident prevention. The development of such a function will be a difficult task and it is not clear whether a completely satisfactory resolution is attainable.

Even when experiments are well designed and have adequate statistical power, definitive generalizations on the basis of a single study are usually not justified. The establishment of scientific principles and relationships requires that a given finding be confirmed by more than one experiment--preferably by different investigators. In driver treatment programs, such programmatic research and planned replication have rarely been attempted.

The requirement of replication is particularly acute in driver improvement because the expected size and duration of treatment effects (on accident criteria) are very limited and because each state represents

a different operational environment and target population. Consequently, it is conceivable that a program found to be effective in one state might not be effective when applied within the operational environment and social milieu of another state.

5.1.2. System and Management Variables vs. Sanction Variables

It is essential to distinguish between system and management variables and sanction variables, for even extremely effective sanctions can be severely compromised by inadequate management systems and poor quality control. It is possible, in fact, to design an experiment in which management variables are the primary focus of interest. System capabilities that could serve as examples of these variables include

- Clearly stated measurable program objectives and program cost accounting system.
- Information on prior offenses, prior treatment history and drivers license status always available.
- "Proof of service" on license suspensions obtained and usually available to adjudicator.
- Automated management information system for monitoring post-treatment driver performance and generating periodic feedback reports.
- Intensive training program for sanction operators.
- Close coordination between all system components.
- High level centralized authority for influencing traffic safety policy and safety legislation.

It is the writers' belief that these kinds of variables will prove to be a more important source of variance in treatment effectiveness than will the specific sanctions used. An "optimum" management systems structure could be developed in either a judicial or administrative setting, with the latter being preferable because of the greater facility with which management variables can be controlled in that setting.

5.2. Specific Sanction Experiments

In this section we refer briefly to a number of experimental investigations that should be conducted to increase the state-of-knowledge regarding traffic offense sanction effectiveness. The outcome of such investigations, which are described in more detail in Chapter 5, Volume II, should provide information needed by traffic safety officials to assist them in determining sanction policy recommendations.

5.2.1. Specific Effects Experiments

- A fine experiment in which selected members of the violator population are randomly assigned to one of three levels of fine.
- A jail experiment in which offenders qualifying for a jail penalty would be randomly assigned to either jail or no-jail sanctions.
- Driver license suspension experiments
 - Comparing those receiving mandatory license suspension for drunk driving convictions with an equivalent group entering a diversion program or a rehabilitation program in which the suspension is avoided.
 - Determining the effectiveness of different suspension periods by randomly assigning drivers eligible for discretionary action to programs of varying length of suspension.
- Experiments jointly investigating the effectiveness of restricted licenses and probationary license status.
- Experiments (possibly conducted in conjunction with the fine and jail experiments) investigating court probation, suspended sentence and alternative public service.
- Experiments investigating the utility of court appearance and a graduated fine schedule based on prior offenses.
- Experiments to assess the effectiveness of court traffic schools and driver improvement programs.

- Experiments in which the factors of "treatment choice" and contingent reinforcement are jointly evaluated.

5.2.2. Quasi-Experimental Designs for Measuring General Effects

Where random assignment to experimental conditions is not feasible, quasi-experimental and statistical control procedures must be utilized. In the case of measuring general effects, various applications of time series are in most cases the only alternative. It should be noted that use of time series is not limited to retrospective and quasi-experimental situations. By exercising experimental control over independent treatment variables, through planned systematic intervention and random allocation of experimental units to treatment conditions, the power of the time series analysis can be integrated with the rigor of a true experiment. The time series concept merely refers to the observation or measurement of phenomena over time, obtaining successive criterion measures over a continuum of time intervals.

In Chapter 5, Volume II, we describe a number of variations on the basic time series experimental design. These include the following:

- A "reversal design" is suggested in which two different interventions (sanction programs) are introduced in two jurisdictions. After some time the programs are reversed (with respect to jurisdiction) and the driver population evaluated in terms of accident and recidivism rates.
- An "interaction design" is proposed in which two interventions are introduced (exclusively) in a jurisdiction at different times. Subsequently the programs are combined to assess their joint effect.
- A "stratified design" is presented in which one intervention is evaluated across several strata, e.g., geographic areas, court environment, management system.

Technical requirements for scientifically rigorous investigations are also described. In conjunction with investigations of general effects, the need to document public attitudes toward traffic offense sanctions is stressed.

5.3. Considerations of Policy Research Beyond the Technical Requirements

In addition to specifying the technical requirements for meaningful research into traffic offense sanction effectiveness, it is appropriate to comment briefly on additional factors that impact on policy decisions that may be based on the research outcome. Investigations into traffic sanctions effectiveness are limited by moral, political and economic constraints. In order to conduct research related to a certain sanction policy, it may be necessary, for example, to enact new legislation. In such a situation the political constraints associated with the legislative process will impact on the possibility of learning about that sanction. Similarly, initial testing might indicate that a new but rather expensive (sanction oriented) countermeasure will be cost effective. In spite of the positive prospects for such a program, convincing officials to commit the large funds required for necessary replication or for implementation may prove difficult in an atmosphere of official skepticism and/or when the political climate suggests fiscal restraint and recognition of pressures from other programs for limited funds. For reasons such as this it is necessary that research activities be well planned and rigorously conducted so that programs that satisfy appropriate (and still to be developed) criteria for societal benefits in accident prevention can satisfactorily compete both with other accident prevention programs and with other programs seeking funding.

Section 6

ANALYSIS OF FOUR SANCTION POLICIES

Preceding sections presented a summary survey of what is presently known about traffic sanction policy as a loss prevention strategy and attempted to present an accounting scheme that can be used to evaluate the impact of a sanction policy.

This section summarizes an application of the framework developed above to analyze four widely discussed sanction policies in detail:

- "Habitual offender" laws
- Driver license suspension/revocation
- Minimum mandatory penalties
- Restricted or occupational licenses.

6.1. Habitual Offender Laws

The increasing practice of identifying certain driver populations as "habitual offenders" on the basis of having been convicted of a specified number and type of traffic offenses within a given time period has been examined in detail. While there are slight variations in eligibility criteria from state to state, a detailed analysis of the North Carolina drivers satisfying the criteria suggests that almost all eligibles will be so designated because they are recidivist drunk drivers. Since it is not known whether it was the intent of the legislation to so narrowly define this population, it is recommended that the impact of the eligibility criteria on a state's total driving population be assessed prior to enactment of additional habitual offender statutes, as there may be some other driver populations equally or more dangerous that should be included.

In North Carolina (as in most other jurisdictions with such laws), the proceedings for confirmation of a driver as a habitual offender are both elaborate and expensive, involving the prosecutor, courts, and licensing agency. Because of this complex processing and due to varying priorities throughout the state,

the enforcement of this law is uneven. For those confirmed, the penalty imposed (five-year license revocation) is comparable to what they would have already been subjected to (by virtue of their three convictions for drunk driving). When drivers whose case in habitual offender proceedings was pending were used as a quasi control group, no significant difference in a two-year subsequent driving record was found when compared to the confirmed habitual offenders.

The concept of habitual offender status as a last resort when all other sanctioning remedies have been exhausted is not fulfilled in the North Carolina statute. In effect, this statute provides for an elaborate judicial proceeding to impose a license revocation on a group of drivers who, for the most part, are already under revocation. A re-evaluation of this proceeding is recommended in terms of eligibility criteria, and sanctions imposed.

6.2. Driver License Suspension

From the point of view of the sanctioned individual, a driver license suspension or revocation, hereinafter referred to as suspension, must be considered a sanction. It is a somewhat unique sanction since its imposition is dependent on the cooperation of the suspended driver. Although also imposed in the judicial setting, this sanction is more often imposed in the administrative setting. Statutes provide for both mandatory and discretionary suspensions, with the degree of discretion varying from one jurisdiction to another. It is estimated that at any one time about one and one half percent of all licensed drivers are under suspension. Estimates of violations of suspension are generally conservative, but suggest that in excess of 50 percent of suspended drivers drive to some extent during the suspension period.

In terms of the sanction criteria elements, a suspension is likely to be administered more evenly as a mandatory penalty, than as a discretionary penalty. Additionally, because of the availability of prior records, more evenness should result in the administrative setting than in the judicial setting. While the costs involved in imposing and enforcing

An exception was in terms of license revocation but this is thought to be an artifact since the confirmed group received a revocation as a result of their confirmation.

suspensions are small when compared to those of incarceration, there are some notable expenses associated with this sanction. In most states, suspension is imposed both as a penalty for safety related offenses and in response to failure to perform certain administrative duties, thereby diluting its impact on safety related offenses.

The effectiveness of the license suspension has been found to be dependent on the driver subpopulation on which it is imposed. Chronic violators of minor traffic offenses (generally subject to discretionary penalties) violate suspensions at the highest rate, while convicted drunk drivers (generally subject to mandatory penalties) have relatively fewer violations but more accidents during suspension. Little has been reported about the longterm effects of suspension, after the license has been restored.

A general deterrence effect does result from suspensions. It is probably due in part to the public's being unaware of the extent of suspension violation and lack of enforcement. Studies using warning letters and related countermeasures suggest that the threat of suspension produces a quasi-general deterrent effect on the population of drivers just below the threshold of eligibility for suspension. For this reason, it is recommended that this "ultimate" administrative sanction be reserved for severe cases and as a coercive force to back up intermediate sanctions.

6.3. Mandatory Penalties

Although mandatory penalties are specified in the statutes for certain traffic offenses, in practice, the imposition of these penalties is far from uniform. Legislation providing for mandatory penalties is generally motivated by the desire for increased general and specific deterrence and for reduced accidents. In the adjudicatory setting, principally in the judicial area, the individuals involved go to considerable length to avoid mandatory imposition of jail and license suspension penalties. Two examples of this are as follows:

- As a result of the requirement for defendants to be advised of their right to counsel, a practice developed in California of challenging prior convictions for drunk driving and having them overturned on the grounds of not having been sufficiently advised of these rights. Those defendants

whose prior convictions were overturned thereby avoided the license suspension mandated for second offenders. Because of reporting and other operational deficiencies, the abuse of this procedure became widespread and has only recently been brought under control.

- With the introduction in Arizona of a mandatory (unsuspendable) one day jail penalty for first offense drunk driving, a dramatic (threefold) increase in innocent pleas and a near doubling of requests for jury trials occurred in Phoenix. As a result of this problem a pre-trial diversion program was instituted.

As defined, mandatory penalties based on the instant offense and prior record would satisfy the evenness criterion. Because these penalties are seldom uniformly imposed on this basis, evenness is seldom satisfied. Furthermore, since mandatory penalties are generally only prescribed for serious offenses, they tend to satisfy appropriateness and rational allocation requirements.

Because it is legally and operationally difficult to conduct controlled experiments regarding the effectiveness of mandatory penalties, the literature in this area is sparse.

- A correlational study showed little reduction in recidivism resulting from mandatory jail sentences for drunk drivers.
- Mandatory license suspensions have been demonstrated effective during the suspension period but their long term effect was not measured.

A general deterrent effect can result from mandatory penalties but its continued effectiveness requires adequate enforcement, publicity and adherence to the prescribed sanctions.

6.4. Restricted or Occupational Licenses

The restricted or occupational license is a penalty which is generally issued in lieu of a license suspension, reserving suspension as an ultimate threat to encourage compliance and as a penalty for more serious

violators. In the 27 jurisdictions providing for this sanction, it is imposed on different driver populations under varying conditions and in different settings. Organizations such as AAMVA and IACP have opposed this sanction, claiming it dilutes the license suspension and reduces deterrence. Supporters of the occupational license claim that the means of predicting who should receive a suspension (in terms of subsequent performance) are not adequate and that the effectiveness of suspensions is also questionable.

If the restricted license is available to all drivers, it can be imposed evenly; if hardship must be demonstrated, then evenness requires verification of hardship. The costs of restricted licenses (to the sanctioning agency) are comparable to those of suspension. Judging from the various actions taken by individuals in the traffic offense processing system--enforcement officers, judicial officers and defendants--to avoid license suspensions, the introduction or availability of an intermediate sanction in the administrative (licensing) area is appropriate. It appears that the restrictive conditions of these licenses are frequently violated--just as was the case with suspended licenses. Nevertheless, the effectiveness of the restricted license as a sanction is dependent on the observer's perspective. Some studies have shown them effective vis a vis suspensions--others have shown them at least comparable.

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